# 2020 Alabama State Health Assessment

ALABAMA PUBLIC HEALTH

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STATE HEALTH OFFICER

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As State Health Officer of Alabama, I am pleased to present the 2020 Alabama State Health Assessment (SHA). This assessment assists the Alabama Department of Public Health (ADPH) with identifying strengths and areas of improvements for state distributed resources.

The 2020 SHA summary provides updates of 14 health indicators in Alabama, changes in the state's health since 2015, and information on resources available to address these concerns. The 14 health indicators were identified through surveying government and local agencies, community organizations and groups, healthcare providers and support professionals, and residents across Alabama. The SHA also includes data on new, emerging health areas requested by partners.

The pandemic has been a challenging experience, but the heroic efforts remind us that building and maintaining healthy communities requires a collaborative approach. ADPH will continue to be a partner in developing solutions to many community issues. ADPH hopes that the information in this SHA increases your awareness of the health issues in our state, your knowledge of resources and programs that are available, and a drive to become involved in initiatives to create the "Healthy People. Healthy Communities. Healthy Alabama" we envision.

The SHA is also an essential part to ADPH maintaining accreditation, and ADPH welcomes your comments and feedback. For more information about ADPH and our services, please visit our website at www.alabamapublichealth.gov.

Sincerely,

Scott Harris, MD

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## Collaborative Development of the State Health Assessment

The Alabama (AL) Department of Public Health (ADPH) seeks to promote, protect, and improve the health of all individuals in AL. With the guidance of community partners, ADPH staff developed a State Health Assessment (SHA). This statewide report helps ADPH better understand local communities' concerns/needs and develop plans with partners to address health outcomes.

The following section depicts how the ADPH SHA workgroup collaborated with a team of University of AL in Tuscaloosa members, complied survey results from community partners, completed a literature review, and reviewed the 2015 Community Health Assessment (CHA) data to create the 2020 SHA.

### Step 1: Sought the public's input through the 2019 Community Health Issues Survey (CHIS)

Once the workgroup had been formed, the first in-person meeting highlighted that new health concerns could have emerged in the 5 years since the last SHA, and it would be necessary to query a sample of community members regarding new health topics. After determining the Health Issue Focused Approach was the best model, the SHA workgroup reviewed the previous survey to improve upon delivery and clarity. The workgroup contracted with the University of AL in Tuscaloosa to develop the 2019 survey, asking individuals to choose and rank their top ten health concerns. This survey was distributed by paper and electronically with partners and the public for anyone ages 19 years or older. Leading health concern results were disseminated to ADPH staff at the state and public health district level.

### Step 2: Gathered surveillance data on the leading concerns in the community

Through the community feedback, partners also suggested new or additional data sources to include in the 2020 SHA to make it more comprehensive. The workgroup identified multiple sources for each of the top health indicators to create a broader picture of community health. The 2020 SHA includes an in-depth report from a variety of sources such as county-level census data, behavioral health surveys, health registries, billing and claims data, the AL State Department of Education (ALSDE), and local non-profit initiatives.

During the data gathering process, additional data was collected on specific populations that experience greater health disparities. Partners also requested local and rural community resources be incorporated into SHA. The resources were recommended and compiled by ADPH program staff.

### Step 3: Explained specific health-related concerns throughout the SHA

The front page of each health indicator includes a summary of top health concerns identified through Steps 1 and 2. The summary page also highlights areas where populations are disproportionately affected. The SHA workgroup identified new data sources and topics to establish a baseline and to monitor progress on each major concern. Community resources were expanded through the local partners and are listed at the end of each health indicator section.

## Identifying the Leading Health Indicators

Between May and October 2019, CHIS was distributed in online and paper formats to community members, organizations, and partners. It received a total of 5,585 responses (1,836 partially completed and 3,749 fully completed). This survey was available in English and Spanish. Most respondents were between the ages of 20 and 64 years old. Healthcare-related professionals were the primary respondents of the CHIS survey (38.6 percent), followed by educators (9.5 percent), and other government employees (9.3 percent). Approximately 29.7 percent of respondents identified themselves as a minority race. The paper English-version survey can be found in the Appendix.

Respondents were asked to rank the top ten important health issues from a list of 59 general health topics with space included for other concerns to be indicated. The total was aggregated to identify the 14 leading health indicators listed below. The team identified two new indicators since the 2014 survey, "Social Determinants of Health" and "Environmental Health." In this document, each listed indicator will have an introduction that briefly describes the health concern and recent data to highlight the current health status. The indicators are:

1. Mental Health and Substance Abuse
2. Access to Care
3. Pregnancy Outcomes
4. Nutrition and Physical Activity
5. Social Determinants of Health (new)
6. Sexually Transmitted Infections
7. Geriatrics
8. Cardiovascular Diseases
9. Child Abuse/Neglect
10. Environmental Health (new)
11. Violence
12. Cancer
13. Diabetes
14. Tobacco Usage and Vaping

**How the Data Was Chosen**

To increase utilization and implementation of SHA, ADPH is creating more opportunities for the community to view and interact with the population health data. The purpose of publicly available data is to provide community partners the opportunity to make data-driven decisions within their community via policy or environmental changes.

The final statewide SHA includes detailed data and information on each health indicator and associated measures, a comparative ranking of counties for each concern and indicator (where available), and existing resources that may be available to assist in intervention. To keep the document concise, there are only a few measures for each health indicator. The SHA workgroup chose to provide the data at the state and county level to represent as many Alabamians as possible in the identified measure.

## Advancements Made Since 2015

The public health system is a collaborative environment, often relying on the public, private, and community partners. Every 5 years, ADPH describes the health of all 67 counties within the jurisdiction. Since the 2015 CHA, the state has continued to make progress in various areas with a focus on health disparities, such as incorporating disproportionately affected groups in routine data collection and community focus groups. While the information presented is not comprehensive of all the work done at ADPH since the last SHA, it highlights ongoing efforts to improve data gathering and inform local community needs:

- ADPH hired a full-time SHA Coordinator to continually update the health indicator data, conduct assessments throughout the state, and provide timely data to internal and external partners upon request.
- The department switched from primarily using paper surveys and contracted with the University of AL in Tuscaloosa to collect and manage the online survey responses. By increasing the online platform, the survey could reach more populations and health providers.
- In this document, new health indicators ("Environmental Health" and "Social Determinants of Health") were added to explore how the environment affects an individual's health. Within the other 12 indicators, new data points provide more details about Alabamian health outcomes.
- Partners involved in the development of the SHA also brought local community issues to the table. "Health Indicators 3: Poor Pregnancy Outcomes" (page 47), "Health Indicator 4: Nutrition and Physical Activity" (page 57), and "Health Indicator 6: Sexually Transmitted Infections" (STI [page 80]) contain sections that further investigate health disparities and how the built environment impacts the opportunity to participate in preventative health behaviors.

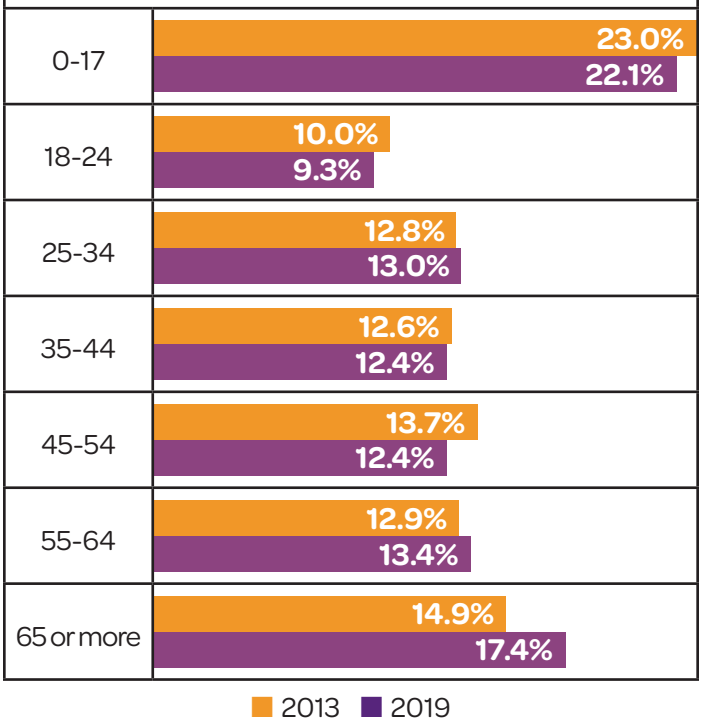
# Alabama Economic and Demographic Data

SHA includes a brief overview of state-level health data and comparison data from the 20042020 United States (U.S.) Census Bureau and the 2015 CHA.

### Alabama has a Growing Elderly Population

- The percent of individuals over 55 years old is steadily increasing.
- In 2013, the population for 65 years old or more was 14.9 percent. In 2019, the population for 65 years old or more increased to 17.4 percent.[1]
- Nursing home usage and medical expenditures are expected to continue to rise in the upcoming decades.

**Figure 1** – This graph demonstrates the AL age distribution by assessment years 2013 and 2019. Source: U.S. Census Bureau.

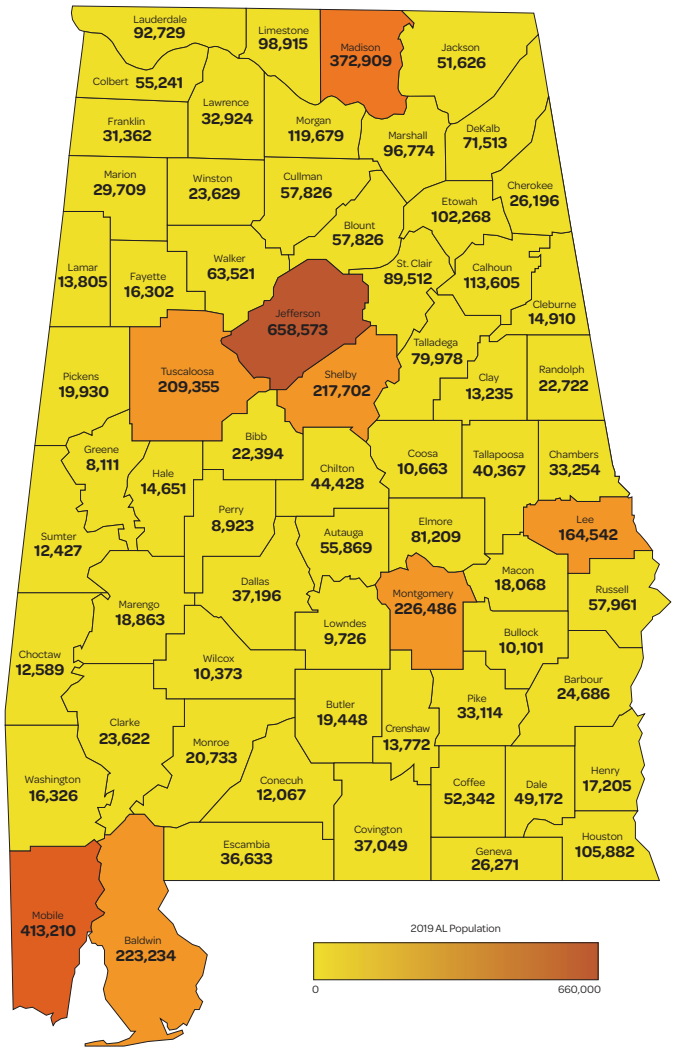



### Alabamians Mostly Live in Urban Centers

AL's population was estimated to have increased 2.6 percent since the 2010 U.S. Census, particularly in the areas surrounding six major cities: Auburn, Birmingham, Huntsville, Montgomery, Mobile, and Tuscaloosa. In 2019, 57.0 percent of AL residents live in urban areas.[2]

The population shifting to more urban areas can affect different environmental aspects that influence the health of a community. Examples of the impacts of this shift include: a small/affordable housing market, gentrification, and providers concerned about reaching rural populations more effectively (e.g., telehealth).[3]

**Figure 2** – This map represents the population distribution throughout AL in 2019. Source: U.S. Census Bureau.




### Almost One-Third of the Alabama Population Identifies as a Minority Race

Almost one-third (33.2 percent) of the AL population identifies as a minority race. The fastest growing minority group is the Hispanic population, growing from 2.3 percent in 2005, to 4.5 percent of the AL residents in 2019.[1] African Americans (AA)/blacks made up 26.9 percent of the AL residents in 2019.

Although the primary language in AL is English, 5.5 percent of residents spoke a non-English language at home in 2019. Spanish was the most prevalent non-English languages spoken at home (3.6 percent).[4]

The below demographics do not include temporary residents, such as students, seasonal employees, and farm workers.

**Table 1** – This table demonstrates the racial and ethnicity identification of AL residents in 2019. Data does not round to 100 percent due to estimation techniques. Source: U.S. Census Bureau.

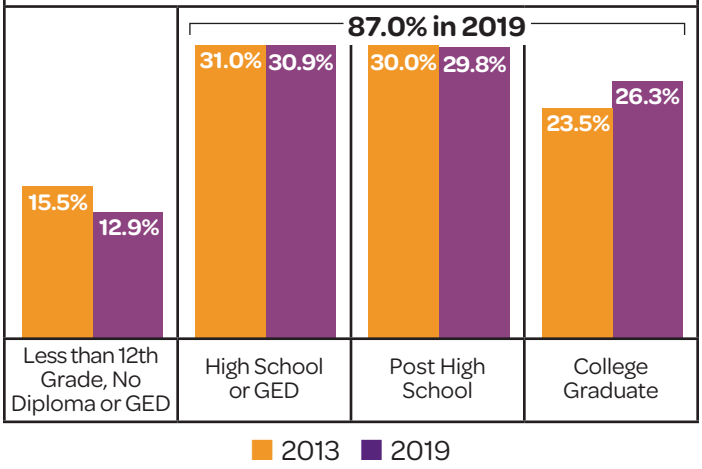
| Racial Identification | Count/Percent (%) |
|---|---|
| AA/black | 1,319,551 (26.9) |
| American Indian/Alaska Native | 23,265 (0.5) |
| Asian | 66,129 (1.3) |
| Native Hawaiian and other Pacific Islander | 1,892 (0.04) |
| White | 3,326,375 (67.8) |
| Some other race alone | 74,451 (1.5) |
| Two or more races | 91,522 (1.9) |
| **Ethnicity Identification** | **Count/Percent (%)** |
| Hispanic | 219,296 (4.5) |
| Non-Hispanic | 4,683,889 (95.5) |

### Over One-Fourth of the Alabama Population are College Graduates

Educational attainment has been correlated with better health outcomes. According to the U.S. Census, 87.0 percent of Alabamians age 25 or older have graduated from high school or attained post-secondary education in 2019.[1] This is below the national average in 2019, which was 88.6 percent:

- AL is nationally ranked 43rd in education by the K-12 Achievement Index for 2018. AL had an overall graduation rate of 90 percent for the class of 2020.[5]
- The largest public-school enrollment size was elementary children (Grades 1-5) with 282,251 students. AL had 739,716 students enrolled during the 2018-2019 school year. There were 46,766 teachers employed in public schools, or one teacher for every 16 students.[5]

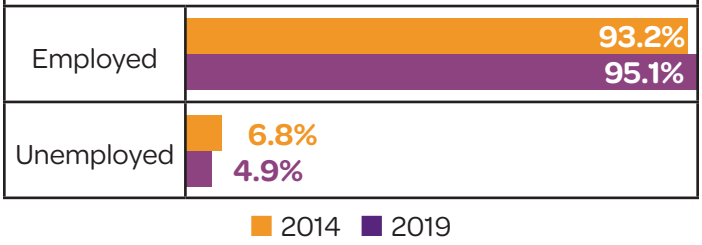
**Figure 3** – This graph demonstrates the educational attainment of AL residents aged 25 years or older by assessment years 2013 and 2019. Data does not round to 100 percent due to estimation techniques. Source: U.S. Census Bureau.




### At the End of 2019, Most of the Eligible Labor Force was Employed

Employment is an important social indicator to economic stability. At the end of 2019, the unemployment rate was 4.9 percent of the active labor force at that time.[6]

**Figure 4** – This graph demonstrates the employment rate of AL residents by assessment years 2014 and 2019. Source: U.S. Census Bureau.



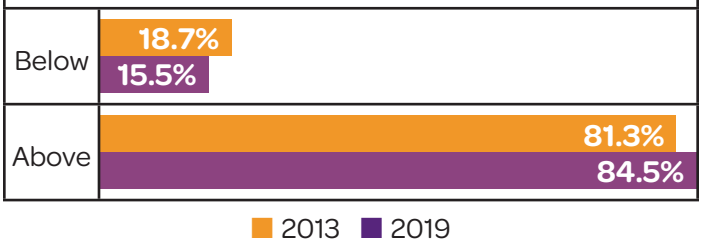

### Nearly 1 out of 5 Alabamians Live Below the Federal Poverty Line

Poverty and low-income status are associated with a variety of adverse health outcomes, including shorter life expectancy, higher likelihood for inadequate health insurance, and overcrowded housing:[7]

- Based on the 2019 Census data, the 100 percent federal poverty line for a two-person household was $16,910. For a three-person household, the poverty line was set to $21,330. The poverty line limit was $25,750 for a four-person household.[8]
- In the 2013, 18.7 percent of Alabamians lived below the federal poverty level.

- The percentage improved in 2019 to 15.5 percent of Alabamians living below the federal poverty level.[1]

**Figure 5** – This graph demonstrates federal poverty level of AL residents by assessment years 2013 and 2019. Source: U.S. Census Bureau.




### Ambulatory Difficulty is the Most Common Disability Filed in Alabama

Living with a disability or special healthcare need can significantly affect a person's health. In the table below, types of disabilities among adults in AL are categorized by experienced difficulties. Individuals may be counted in more than one group:

- In 2019, 15.9 percent of the population was living with a disability, which was the same for the 2015 CHA.[9]
- According to the Centers for Disease Control and Prevention (CDC), disability-associated healthcare expenditures in AL amounted to roughly $9,522 per person living with a disability in 2015.[10]
- Additionally, this population tends to be more physically inactive, smoke, and have high blood pressure. In AL, adults with disabilities are more likely to be obese (45.6 percent) compared to adults without disabilities (30.9 percent).[11]

**Table 2** – This table demonstrates types of disabilities among AL residents in 2019. Source: U.S. Census Bureau.

| Disability | % |
|---|---|
| Independent Living Difficulty | 7.4% |
| Self-care Difficulty | 3.3% |
| Ambulatory Difficulty | 9.3% |
| Cognitive Difficulty | 6.3% |
| Vision Difficulty | 3.1% |
| Hearing Difficulty | 4.4% |

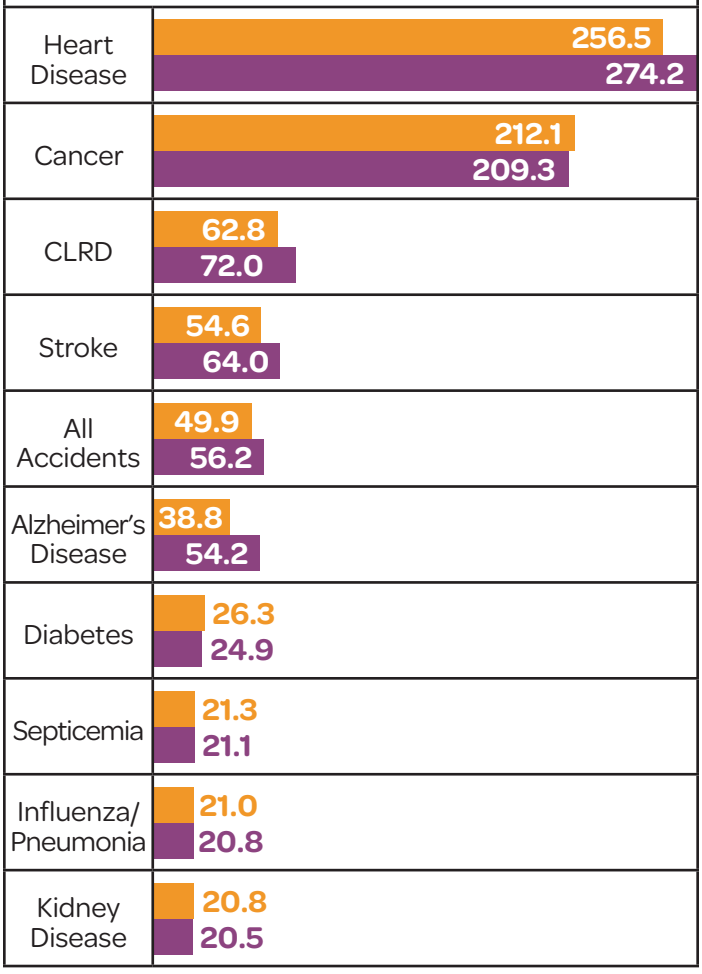
### Heart Disease is the Leading Cause of Death in Alabama

In 2018, CDC estimated the average life expectancy in AL was 75.1 years compared to the national average of 78.7 years.[12] AL had the third worst overall life expectancy in the U.S., only behind West Virginia and Mississippi. For males, the average life expectancy was 72.1 years, and for females, the average life expectancy was 78.0 years.[12,13]

According to CDC, 7 of the 10 leading causes of death are non-communicable diseases, which can be preventable with lifestyle changes.[12] Mortality rates are used as indicators for understanding population-level disease burden and individual management of chronic diseases. The leading cause of death in AL was heart disease. The mortality rate of heart disease has increased from 256.5 deaths per 100,000 persons in 2014 to 274.2 deaths per 100,000 persons in 2019.[14] For more information about cardiovascular diseases (CVDs), see Health Indicator 8: Cardiovascular Diseases.

Cancer mortality contributes to over 10,000 deaths per year in AL.[12] AL improved its cancer rate dropping from 212.1 deaths per 100,000 persons in 2014, to 209.3 deaths per 100,000 persons in 2019.[14] For more information about cancer, see Health Indicator 12: Cancer.

**Figure 6** – This graph demonstrates the crude leading causes of death among AL residents in 2014 and 2019. Chronic Lower Respiratory Disease (CLRD) is ranked third. Source: ADPH Center for Health Statistics.



## Written Sources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3. U.S. Department of Housing and Urban Development (USHUD), Displacement of Lower-Income Families in Urban Areas Report, 2018.
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5. ALSDE, Plan 2020: AL Public High School Graduation Rates, 2020.
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11. CDC, Behavioral Risk Factors Surveillance System, 2018.
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13. National Vital Statistics Report, Life Expectancy, 2021.
14. ADPH, Center for Health Statistics Mortality Files, 2021.

# Indicators

In this section of SHA, each of the 14 leading health indicators for AL are presented in the order they are ranked. Each indicator has an introduction that briefly describes the health concerns, disproportionately affected populations, and why it is important to the community. Then, the following pages of data measures address the current health status of Alabamians in more detail.

At the end of each section, a list of local and statewide representatives is provided under resources, along with the data sources. This includes hospitals, federally qualified health centers (FQHC), rural health clinics, education systems, healthcare providers, government programs, veteran's affairs medical centers, and the Young Men's Christian Association (YMCA).

## 1. Mental Health and Substance Abuse
### Ranked AL's First Health Indicator

The concern for mental health and substance abuse moved to number one from its previous second highest rank in the 2015 survey. According to the World Health Organization (WHO), mental health is the "state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively, and is able to make a contribution to his or her community." Mental health affects an individual's mood, emotional, psychological, and social well-being. Family history, biological factors, and life experiences influence mental health. The most common mental health illnesses are anxiety, depression, and post-traumatic stress disorders.[1]

According to the Substance Abuse and Mental Health Services Administration (SAMHSA), 41 percent of AL adults sought medical treatment for a mental health issue between 2017-2019. Early signs of declining mental health can be an individual withdrawing from normal social support, displaying negative emotions, completing daily tasks, and abusing substances.[2] Substance misuse and abuse refer to the harmful use of alcohol and illicit drugs, including prescription drugs.[3] There can be physical, social, and psychological harm in addition to criminal penalties for possession of the substance. Often, practitioners see mental health and substance abuse co-occurring. Treatment solutions could include individual and group psychotherapies. Accountability and social support are an instrumental part of the recovery process. Discrimination, poverty, and segregation towards individuals with mental illness are all barriers to seeking treatment.[3] Raising awareness helps reduce stigma towards mental illness.

#### Vulnerable Populations

Groups at a higher risk of having a persisting mental illness are veterans, individuals who have experienced a traumatic event early in life, and individuals in abusive relationships or families. In the past 20 years, mental illness rates have been rising. While more services are available, rural and minority populations are still underrepresented due to access to care and social stigma.[3]

#### Geographic Variation

Health outcomes can vary over regions based on the populations and the opportunities to self-manage care. For mental health concerns, the Northeastern Public Health District had the highest suicide rate in 2019. This area also had the highest substance abuse diagnosis prevalence in Medicaid recipients in 2018.

#### Topics Addressed for This Indicator are:

- Suicide mortality.
- Depression diagnosis among Medicaid recipients.
- Alabama adults with depression.
- Depression among Medicare recipients.
- Schizophrenia among Medicare recipients.
- Mental health professional shortage areas.
- Substance abuse diagnosis in Medicaid recipients.
- Drug-related overdose.
- Drug poisoning mortality.

#### Highlights

Data by county can be found in the Appendix. Data for mental health conditions and substance abuse prevalence are not as complete or comprehensive as other health indicators. The Centers for Medicaid and Medicare information only have limited claims data, which do not cover the total population. Data are also retrieved from ADPH Center for Health Statistics, ADPH Office of Primary Care and Rural Health, ADPH Office of Emergency Medical Services (EMS), the Behavioral Risk Factor Surveillance System (BRFSS), and the National Center for Health Statistics:

- In 2019, suicide was the twelfth leading cause of death in AL.
- In 2018, 38.8 percent of the adult Medicaid population-initiated rehabilitation treatment within 14 days of being diagnosed with an alcohol or drug dependency.
- The suicide mortality rate is almost more than four times greater for males compared to females (26.6 deaths compared to 6.9 deaths per 100,000 persons).

#### Risk Factors:

- Family history.
- Lack of a support system and isolation.
- New, unexpected stressors.
- Chronic illness.
- Difficult life transitions.
- Neglect and abusive relationships.
- Post-traumatic stress disorder.
- Excessive alcohol or previous drug use.

## Suicide Mortality

Suicide is one of the leading mental health concerns, ranking as the tenth leading cause of death in the U.S. and twelfth for AL.[4] Suicide is death caused by self-injury with the intent to die:[5]

- The Northeastern Public Health District (Blount, Calhoun, Cherokee, Clay, Cleburne, DeKalb, Etowah, Shelby, St. Clair, Talladega, and Randolph counties) had the highest rate of suicide mortality in AL.

- The suicide mortality rate is nearly more than four times greater for males than females (26.6 deaths compared to 6.9 deaths per 100,000 persons).
- The highest suicide mortality rate for 2019 is among the 35-44 years old age group, with a significant increase since the 2015 CHA (26.5 deaths compared to 18.7 deaths per 100,000 persons, respectively).
- Among white individuals, the suicide mortality rate is 21.8 deaths per 100,000 persons in 2019, compared to 17.3 deaths in the 2015 CHA.

**Table 1.1 – Suicide Mortality Rate, 2019**

| | Count | Rate per 100,000 |
|---|---|---|
| **AL** | **804** | **16.4** |
| **U.S.** | **47,511** | **14.5** |
| **Public Health Districts** | | |
| Northern | 184 | 16.9 |
| Northeastern | 158 | 19.5 |
| West Central | 66 | 15.2 |
| Jefferson | 102 | 15.5 |
| East Central | 101 | 14.3 |
| Southeastern | 58 | 15.3 |
| Southwestern | 71 | 17.2 |
| Mobile | 64 | 15.5 |
| **Geographic Variation** | | |
| Rural | 368 | 17.5 |
| Urban | 436 | 15.6 |
| **Sex** | | |
| Female | 174 | 6.9 |
| Male | 630 | 26.6 |
| **Race/Ethnicity** | | |
| White | 697 | 21.8 |
| AA/black | 82 | 6.3 |
| **Household Income** | | |
| Not Applicable (N/A) | - | - |
| **Age (in years)** | | |
| Under 18 | 25 | 2.3 |
| 18-24 | 79 | 17.7 |
| 25-34 | 129 | 19.9 |
| 35-44 | 157 | 26.5 |
| 45-54 | 137 | 22.2 |
| 55-64 | 119 | 18.1 |
| 65+ | 158 | 18.6 |
| **Education** | | |
| Less than high school | 164 | - |
| High school or GED | 349 | - |
| Some college | 168 | - |
| College graduate or higher | 116 | - |
| Unknown | 7 | - |

## Depression Diagnosis in Medicaid Recipients

Depression is defined as a persistent depressed mood or loss of interest in activities for more than 2 weeks, causing significant impairment in daily life.[3] The Medicaid population also includes children:

- In 2018, 3.8 percent of AL Medicaid recipients had a diagnosis of depression, a decrease from 5.4 percent in the 2015 CHA.
- In 2018, AL Medicaid recipients who identified as white individuals had more diagnoses than AL Medicaid recipients who identified as AA/black individuals.
- Mobile had the highest percentage of depression in the state.

Demographic information was not available for previous years. For the district level, only confirmed county diagnoses were included in the calculation.

**Table 1.2 – Depression Diagnosis Among Medicaid Recipients, 2018**

| | Count | % |
|---|---|---|
| **AL** | **40,977** | **3.3** |
| **U.S.** | **-** | **-** |
| **Public Health Districts** | | |
| Northern | 7,535 | 3.1 |
| Northeastern | 6,614 | 3.4 |
| West Central | 3,908 | 3.2 |
| Jefferson | 4,086 | 2.5 |
| East Central | 4,878 | 2.6 |
| Southeastern | 4,415 | 3.8 |
| Southwestern | 4,082 | 4.3 |
| Mobile | 5,423 | 4.6 |
| **Geographic Variation** | | |
| N/A | - | - |
| **Sex** | | |
| Female | 28,192 | - |
| Male | 12,785 | - |
| **Race/Ethnicity** | | |
| AA/black | 13,006 | - |
| Non-Hispanic Asian or Pacific Islander | 95 | - |
| White | 22,516 | - |
| American Indian/Alaska Native | 122 | - |
| Hispanic | 625 | - |
| Unknown/Not provided | 3,613 | - |
| **Household Income** | | |
| N/A | - | - |
| **Age (in years)** | | |
| Under 21 | 13,278 | - |
| 21 and over | 27,699 | - |
| **Education** | | |
| N/A | - | - |

## Adults with Depression

Depression is defined as a persistent depressed mood or loss of interest in activities for more than 2 weeks, causing significant impairment in daily life.[3]

According to BRFSS:

- West Central (25.9 percent) and the Southeastern (26.7 percent) public health districts had the highest prevalence of depression in 2019.
- Females continued to have a higher prevalence of depression with 28.5 percent compared to 19.3 percent in males. In the 2015 CHA, the prevalence of depression was 26.3 percent in females and 17.1 percent in males.
- White adults had a prevalence of depression of 26.6 percent compared to AA/black adults with a prevalence of 17.0 percent. These rates were similar in the 2015 CHA.
- The prevalence is similar throughout age distributions, but sharply declines over age 65 years old with an 18.0 percent prevalence.

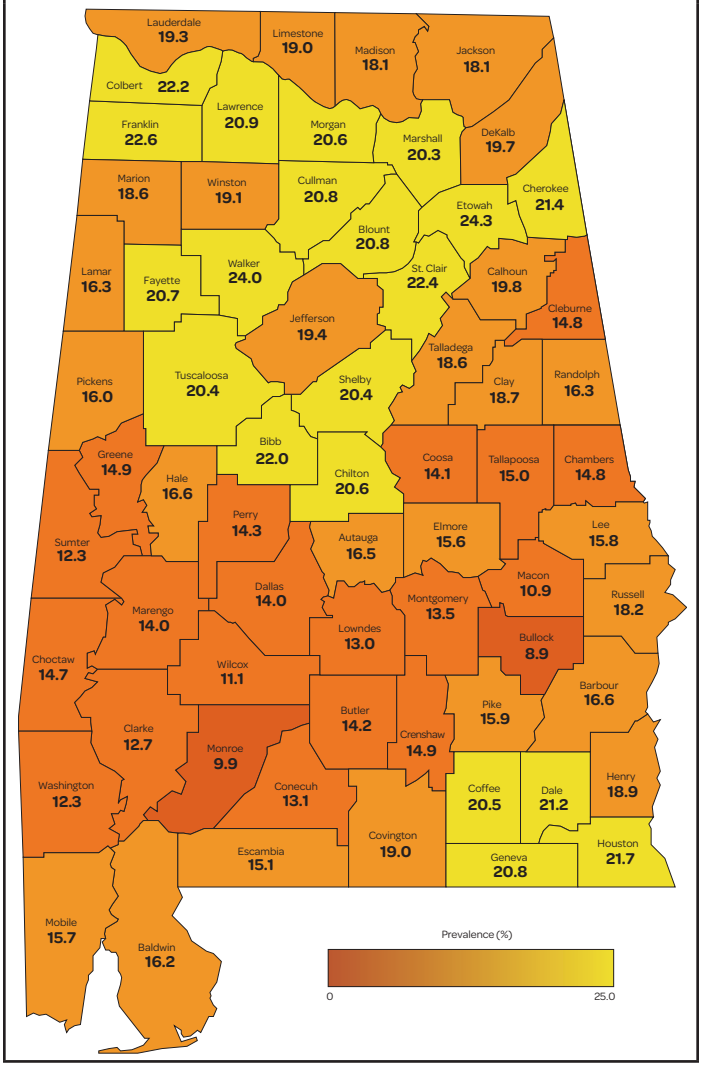
**Table 1.3 – Percentage of Adults Who Ever Had Depression, 2019**

| | % | 95% Confidence Interval (CI) |
|---|---|---|
| **AL** | **24.1** | **(22.7-25.4)** |
| **U.S.** | **-** | **-** |
| **Public Health Districts** | | |
| Northern | 25.8 | (22.3-29.3) |
| Northeastern | 24.8 | (21.5-28.2) |
| West Central | 25.9 | (22.0-29.8) |
| Jefferson | 21.1 | (17.8-24.5) |
| East Central | 24.4 | (20.2-28.6) |
| Southeastern | 26.7 | (22.5-30.9) |
| Southwestern | 19.9 | (16.5-23.4) |
| Mobile | 21.9 | (18.4-25.4) |
| **Geographic Variation** | | |
| N/A | - | - |
| **Sex** | | |
| Female | 28.5 | (26.5-30.4) |
| Male | 19.3 | (17.3-21.2) |
| **Race/Ethnicity** | | |
| White | 26.6 | (24.9-28.3) |
| AA/black | 17.0 | (14.8-19.3) |
| **Household Income** | | |
| Less than 15,000 | 43.5 | (38.6-48.4) |
| $15,000-24,999 | 30.2 | (26.3-34.2) |
| $25,000-34,999 | 23.8 | (18.5-29.1) |
| $35,000-49,999 | 23.7 | (19.8-27.6) |
| $50,000+ | 18.5 | (16.5-20.6) |
| **Age (in years)** | | |
| 18-24 | 24.3 | (18.7-29.9) |
| 25-34 | 26.8 | (22.8-30.7) |
| 35-44 | 25.9 | (22.4-29.4) |
| 45-54 | 26.9 | (23.7-30.2) |
| 55-64 | 25.0 | (22.3-27.8) |
| 65+ | 18.0 | (16.1-19.8) |
| **Education** | | |
| Less than high school | 32.8 | (28.0-37.6) |
| High school or GED | 24.1 | (21.6-26.5) |
| Some college | 25.7 | (23.2-28.2) |
| College graduate or higher | 16.4 | (14.5-18.2) |

## Depression Among Medicare Recipients

Depression can be more prevalent for older adults and persons living with a disability as they experience loss,

**Figure 1.1** – This map represents the distribution of depression prevalence by county. Medicare provides insurance to persons over the age of 65 years old and some disabilities. Source: Centers for Medicare and Medicaid Services.



grief, and physical pain. Identifying depression symptoms early can help reduce suicides and other health problems.[3]

For Medicare recipients:

- The prevalence of depression was 18.4 percent in 2018, affecting 102,710 members. In the 2015 CHA, the prevalence was 13.3 percent.
- The Northern District had the highest prevalence among AL districts.
- Etowah County (a county within the Northeastern District) had the highest county prevalence in 2018 (24.3 percent). In the 2015 CHA, the highest counties were Cullman and Tuscaloosa (Northern and West Central Districts, respectively).

Additional demographic information is not available at this time.

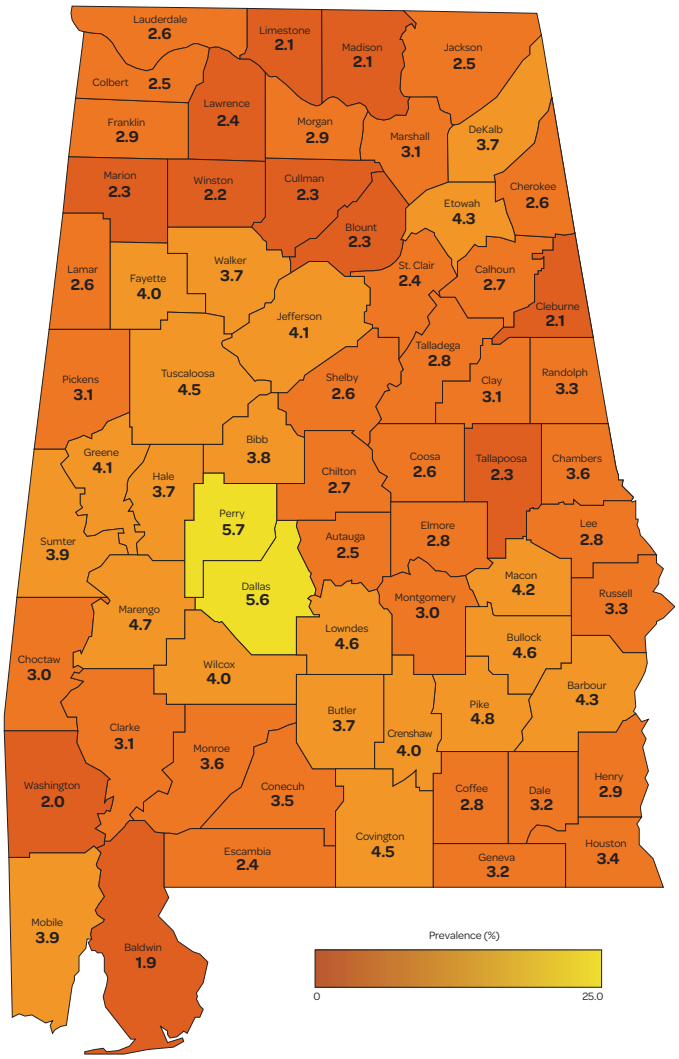
## Schizophrenia Among Medicare Recipients

Schizophrenia is a mental health disorder that includes hallucinations, delusions, disorganized speech, grossly disorganized or catatonic behavior, and mood stability symptoms.[3] People diagnosed with schizophrenia hear, see, or believe things that are not real. Approximately half of the individuals with schizophrenia have a co-occurring mental or behavioral health disorder:[6]

- In 2018, there was a state prevalence of 3.1 percent with schizophrenia, affecting over 17,000 Medicare fee-for-service recipients. The prevalence of schizophrenia was 3.5 percent in the 2015 CHA.
- Perry and Dallas counties had the highest percentage of schizophrenia (5.7 percent and 5.6 percent, respectively).

Additional demographic information is not available at this time.

**Figure 1.2** – This map represents the distribution of schizophrenia prevalence by county. Medicare provides insurance to persons over the age of 65 years old and some disabilities. Source: Centers for Medicare and Medicaid Services.




## Mental Health Professional Shortage Areas

A good system of mental health resources can assist all populations in managing their mental health outcomes, which can include: insurance coverage, reduction of barriers associated with social stigma, and awareness of resources.[3] One critical resource is access to local mental health providers.

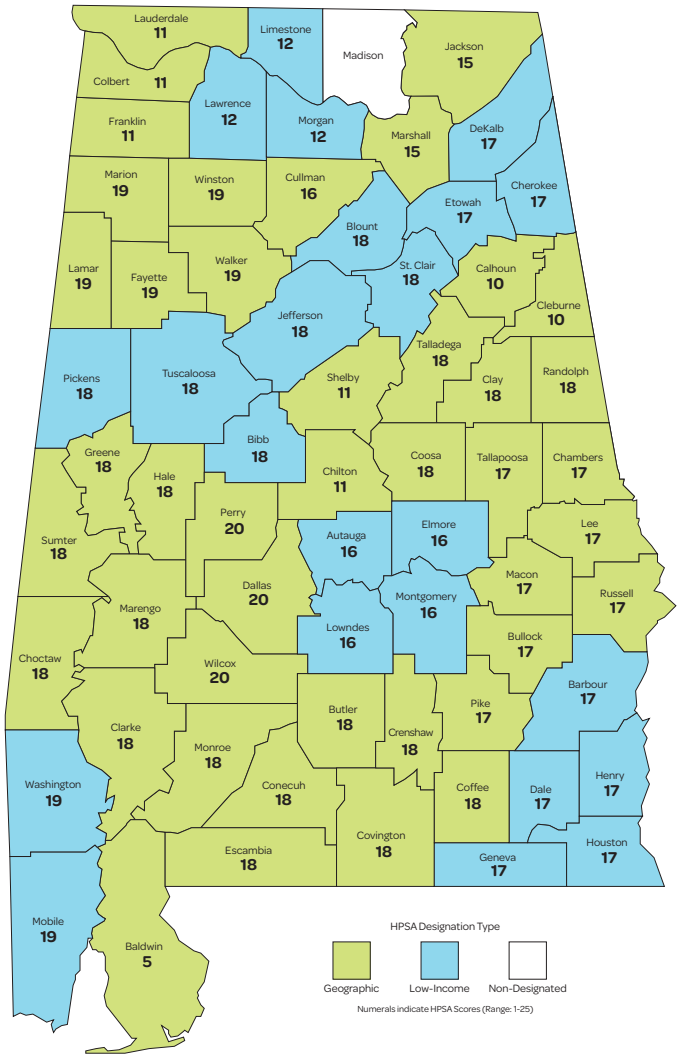
The map in Figure 1.3 depicts:

- Mental health professional areas that have a provider shortage either by geographic or low-income designation.

- Mental health professionals included in this data are medical doctors practicing general medicine and child psychiatry.
- Health Professional Shortage Areas (HPSA) scores range from 125, with 25 being the most significant disparity.

In 2018, Madison County was the only county with sufficient mental health professionals to provide services to its residents. However, services were more adequately covered in the Northern Public Health District than the rest of the state.

**Figure 1.3** – This map represents the HPSA score, ranging from 1 to 25, for each county. Source: ADPH Office of Primary Care and Rural Health.




## Substance Abuse Diagnosis in Medicaid Recipients

Substance abuse is defined as taking a controlled substance in a harmful dose. This could include consumption of alcohol, prescription pain medication, and other illicit drugs.

Following up with long care support and rehabilitation services is important for recovery in this population. In 2018, 38.8 percent of the adult Medicaid population-initiated treatment within 14 days of being diagnosed:[7]

- In 2018, there were 18,037 Medicaid fee-for-service recipients diagnosed with substance abuse in AL.[7]
- The Northeastern Public Health District had the highest prevalence of substance abuse diagnosis with 1.73 percent of all Medicaid recipients.
- Females were diagnosed more when compared to males.

This information was calculated differently in the 2015 CHA and cannot be used to assess an accurate historical trend. For the district level, only confirmed county diagnoses were included in the calculation.

**Table 1.4 – AL Substance Abuse Diagnosis in Medicaid Recipients, 2018**

| | Count | % |
|---|---|---|
| **AL** | **18,037** | **1.5** |
| **U.S.** | - | - |
| **Public Health Districts** | | |
| Northern | 4,018 | 1.67 |
| Northeastern | 3,359 | 1.73 |
| West Central | 2,017 | 1.67 |
| Jefferson | 2,366 | 1.46 |
| East Central | 1,553 | 0.87 |
| Southeastern | 1,496 | 1.29 |
| Southwestern | 1,423 | 1.26 |
| Mobile | 1,565 | 1.32 |
| **Geographic Variation** | | |
| N/A | - | - |
| **Sex** | | |
| Female | 10,876 | - |
| Male | 7,161 | - |

| | | |
|---|---|---|
| **Race/Ethnicity** | | |
| White | 10,912 | - |
| American Indian/Alaska Native | 54 | - |
| Asian | 361 | - |
| AA/black | 4,419 | - |
| Hispanic | 162 | - |
| Other/Not provided | 2,471 | - |
| **Household Income** | | |
| N/A | - | - |
| **Age (in years)** | | |
| N/A | - | - |
| **Education** | | |
| N/A | - | - |

## Drug-related Overdose

According to CDC, AL's opioid dispensing rate was the highest prescribing rate in the country with 85.8 medications for every 100 persons in 2019.[8] This rate was significantly higher than the average U.S. rate of 46.7 prescriptions per 100 persons.[8]

The maps show the rates of all drug and opioid overdose emergency response (911 runs) by county in 2018.

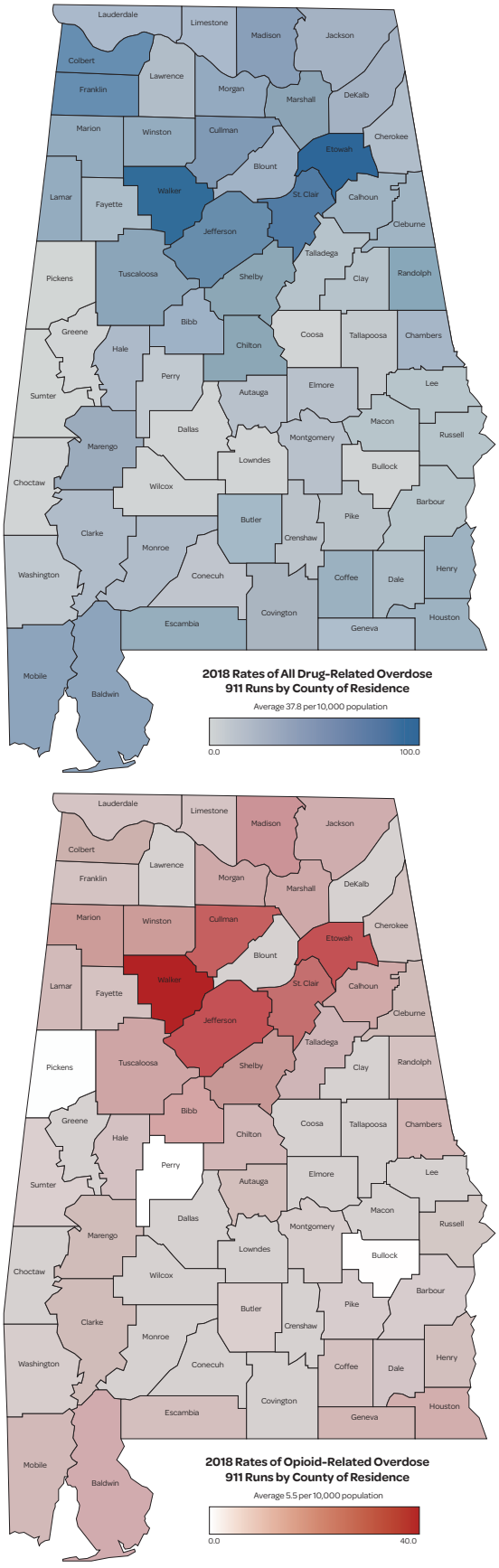
- The average rate of drug-related overdose 911 runs was 37.8 per 10,000 persons, and the average rate of opioidrelated overdose runs was 5.5 per 10,000 persons.
- The rate of 911 runs for overdoses were highest in Jefferson County and the surrounding area.

Naloxone is a medication designed to reverse opioid overdose rapidly. One dose of naloxone counts as one administration:

- In 2018, 6,287 doses of naloxone were administered and reported to the Office of EMS, a 34.7 percent increase from 2017 (4,666 doses administered).[9]
- The administration was highest in males 2544 years old with over 1,500 naloxone administrations. The number of administrations may be higher than the number of persons who may receive more than one injection.

This data does not account for outcomes after administration. Naloxone administration may be affected by availability. ADPH plans to utilize Syndromic Surveillance System data by identifying overdoses through emergency room visits.

**Figure 1.4** – The number of drug-related overdose 911 runs by county. The map is further broken down into opioid-related runs by county. White counties show areas where data was not collected. Source: ADPH Office of EMS.



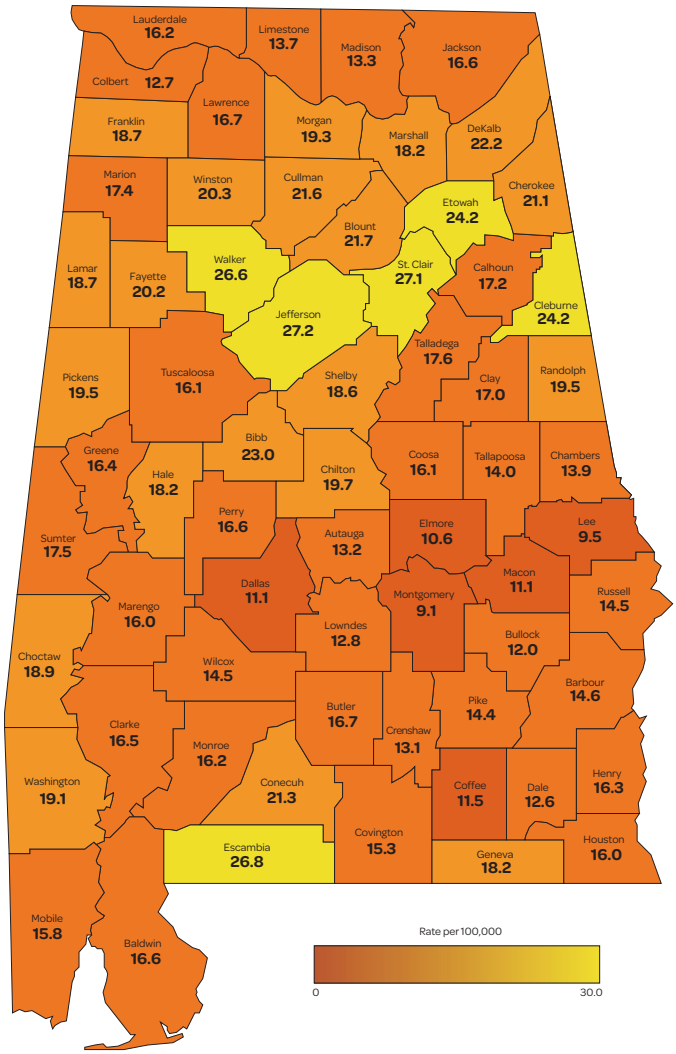
## Drug Poisoning Mortality

According to CDC, in 2019, there were 827 drug poisoning deaths in AL with a rate of 16.9 per 100,000 persons compared to the national rate of 23.1 per 100,000 persons. Compared to 2013, there were 648 drug poisoning deaths with a crude rate of 13.4 deaths per 100,000 persons.[10] This includes both intentional and unintentional poisonings noted on death certificates.

In Figure 1.5, the map is modeling age-adjusted drug poisoning deaths from the National Center for Health Statistics:

- In 2019, The highest drug poisoning death rates by county were Russell County with 38.0 deaths, Dekalb County with 32.2 deaths, Jefferson County with 31.0 deaths, and St. Clair County with 25.7 deaths per 100,000 persons.
- In 2013, Walker County previously had the highest death rate with 43.9 deaths per 100,000 persons.

**Figure 1.5** – This map represents the mortality rate due to drug poisonings in AL. Source: National Center for Health Statistics.




These rates are an underestimation of the total amount. If poisoning is not suspected, a drug test may not be run. ADPH plans to use Poison Control Center data to better understand the prevalence and distribution in AL.

## Data Sources

**Table 1.1 – Suicide Mortality, 2019.** ADPH, Center for Health Statistics Mortality Files, 2019. Data requested March 2021.

**Table 1.2 – Depression Diagnosis Among Medicaid Recipients, 2018.** AL Medicaid Agency, 2019. Data requested July 2020.

**Table 1.3 – Percentage of Adults Who Ever Had Depression, 2019.** CDC, BRFSS, 2019. Data requested March 2021.

**Figure 1.1 – Depression Among Medicare Recipients, 2018.** Centers for Medicare and Medicaid Services, 2019. Data requested January 2021.

**Figure 1.2 – Schizophrenia Among Medicare Recipients, 2018.** Centers for Medicare and Medicaid Services, 2019. Data requested January 2021.

**Table 1.4 – AL Substance Abuse Treatment Admissions in Medicaid Recipients, 2018-2019.** AL Medicaid Agency, 2019. Data requested July 2020.

**Figure 1.4 – Rates of Drug Overdose-Related 911 Runs by County of Residence, 2018.** ADPH, Office of EMS, 2018. Data requested January 2021.

**Figure 1.5 – Drug Poisoning Mortality, 2018.** National Center for Health Statistics, 2018. Data requested March 2021.

## Written Sources


1. WHO, Mental Well-Being, 2020.
2. SAMHSA, *Behavioral Health Barometer Region 4, Volume 6*. Adult Mental Health and Service Use, 2020.
3. CDC, Mental Health, 2020.
4. CDC National Center for Health Statistics, Age Adjusted Leading Causes of Death, 2019.
5. CDC, Suicide Prevention, 2020.
6. National Institute of Mental Health, Schizophrenia, 2020.
7. National Alliance on Mental Illness, Substance Abuse Disorders, 2020.
8. CDC, U.S. State Opioid Dispensing Rates, 2019.
9. ADPH, Office of Emergency Management, 2018.
10. CDC National Center for Health Statistics, Drug Poisoning Mortality, 2018.

## Community Resources

**AL Department of Mental Health**
Location: Montgomery County, AL
Type: State Government Organization

**AL Department of Rehabilitation Services**
Location: Montgomery County, AL
Type: State Government Organization

**Alabama Suicide Prevention & Resources Coalition**
Location: Jefferson County, AL
Type: Non-profit Organization

**Brewer-Porch Children's Center**
Location: Tuscaloosa County, AL
Type: Research Institution

**CDC**
Location: Atlanta, GA
Type: Federal Government Organization

**Consumer Product Safety Commission**
Location: Atlanta, GA
Type: Federal Government Organization

**Health Resources and Services Administration (HRSA)**
Location: Washington, DC Metro
Type: Federal Government Organization

**Hill Crest Behavioral Health Services**
Location: Jefferson County, AL
Type: Behavioral Health Facility

**Laurel Oaks Behavioral Health Center**
Location: Houston County, AL
Type: Behavioral Health Facility

**National Institute on Alcohol Abuse and Alcoholism**
Location: Bethesda, MD
Type: Federal Government Organization

**National Institute on Drug Abuse**
Location: Washington, DC Metro
Type: Federal Government Organization

**National Suicide Prevention Lifeline**
**1-(800) 273-8255**
Location: Washington, DC Metro
Type: Federal Government Partnership

**Sequel Courtland**
Location: Lawrence County, AL
Type: Youth Behavioral Health Facility

**Sequel Tuskegee**
Location: Macon County, AL
Type: Youth Behavioral Health Facility

## 2. Access to Care

### Ranked AL's Second Health Indicator

Alabamians identified access to care as the second highest ranked health indicator in the community health system. Healthy People 2030 describes access to care as "the timely use of personal health services to achieve the best possible health outcomes."[1] Addressing access to healthcare services improves prevention of disease and reduces disability due to disease by allowing early detection and treatment of health conditions.

Quality access to care solutions can increase a community's quality of life, reduce preventable deaths, and increase the population's life expectancy. A well-developed care system can give an individual access to insurance cost coverage, geographic availability, and a personal relationship with the provider.[2] This allows the community to gain entry into the healthcare system, access a healthcare location where needed services are provided, and find a healthcare provider with whom the individual can communicate and trust long-term.

#### Vulnerable Populations

Anyone can be categorized as having limited access to care; however, having two or more limited access factors can decrease your overall health. Rural and underinsured individuals could be at a higher risk for not having proper access to care. Additionally, individuals who have unstable income, such as small business owners and individuals in the service industry, could be at risk of losing health insurance coverage.[3]

#### Geographic Variation

Rural AL is the primary geographic location at risk for this outcome, and rurality is addressed under various health measures throughout SHA.

#### Topics Addressed for This Indicator are:

- Percent of Alabamians with no healthcare coverage.
- Rural healthcare facilities.
- Households without a vehicle.
- Primary care HPSAs.

#### Highlights

Data are retrieved from the Rural Health Information Hub, the ADPH Office of Primary Care and Rural Health, and BRFSS:

- In 2019, a higher percentage of AL's population was uninsured than the U.S. (17.5 percent compared to 13.6 percent).
- Alabamians between 18-24 years old have the highest percentage of the uninsured population at 24.3 percent.

#### Risk Factors:

- Income level.
- Job stability/unemployment.
- Health insurance coverage.
- Geography/rural residents.
- Perceived discrimination from providers.
- Access to reliable information.

## Percent of Alabamians with no Healthcare Coverage

While healthcare coverage does not directly correlate to access to care, it poses a barrier to receiving early and preventive care:[3]

- AL had a higher percentage of the uninsured population than the U.S. (17.5 percent compared to 13.6 percent) in 2019.
- The Southeastern Public Health District had the highest percentage of the uninsured population.
- Males have a higher uninsured prevalence compared to females (18.9 percent and 16.3 percent, respectively).
- AA/black adults have higher uninsured prevalence healthcare coverage than white adults (18.7 percent and 15.1 percent, respectively).
- Alabamians between 18-24 years old have the highest percentage of the uninsured population at 24.3 percent. After 65 years old, most individuals are covered by Medicare or private insurance.

*In Table 2.1, rural and urban calculations were supplied by the U.S. Census Bureau.

**Table 2.1 – Percentage of Alabamians Ages 1864 Years Old with no Healthcare Coverage, 2019**

| | % | 95% CI |
|---|---|---|
| **AL** | **17.5** | **(15.9-19.1)** |
| **U.S.** | **13.6** | **-** |
| **Public Health Districts** | | |
| Northern | 20.8 | (16.3-25.2) |
| Northeastern | 16.5 | (12.7-20.2) |
| West Central | 14.3 | (10.4-18.1) |
| Jefferson | 17.0 | (13.1-20.8) |
| East Central | 16.9 | (12.3-21.5) |
| Southeastern | 22.6 | (17.2-28.0) |
| Southwestern | 11.3 | (8.1-14.5) |
| Mobile | 18.0 | (14.0-22.1) |

| Geographic Variation * | | |
|---|---|---|
| Rural | 12.8 | - |
| Urban | 11.3 | - |
| **Sex** | | |
| Male | 18.9 | (16.4-21.3) |
| Female | 16.3 | (14.2-18.4) |
| **Race/Ethnicity** | | |
| White | 15.1 | (13.3-16.8) |
| AA/black | 18.7 | (15.6-21.8) |
| **Household Income** | | |
| Less than $15,000 | 29.1 | (23.1-35.1) |
| $15,000-24,999 | 31.3 | (26.1-36.4) |
| 25,000-$34,999 | 19.3 | (13.6-25.0) |
| $35,000-$49,999 | 13.8 | (9.9-17.6) |
| $50,000+ | 6.7 | (5.1-8.4) |
| **Age (in years)** | | |
| 18-24 | 24.3 | (18.4-30.2) |
| 25-34 | 19.9 | (16.2-23.6) |
| 35-44 | 20.7 | (17.2-24.3) |
| 45-54 | 13.7 | (11.2-16.3) |
| 55-64 | 10.8 | (8.6-13.1) |
| **Education** | | |
| N/A | - | - |

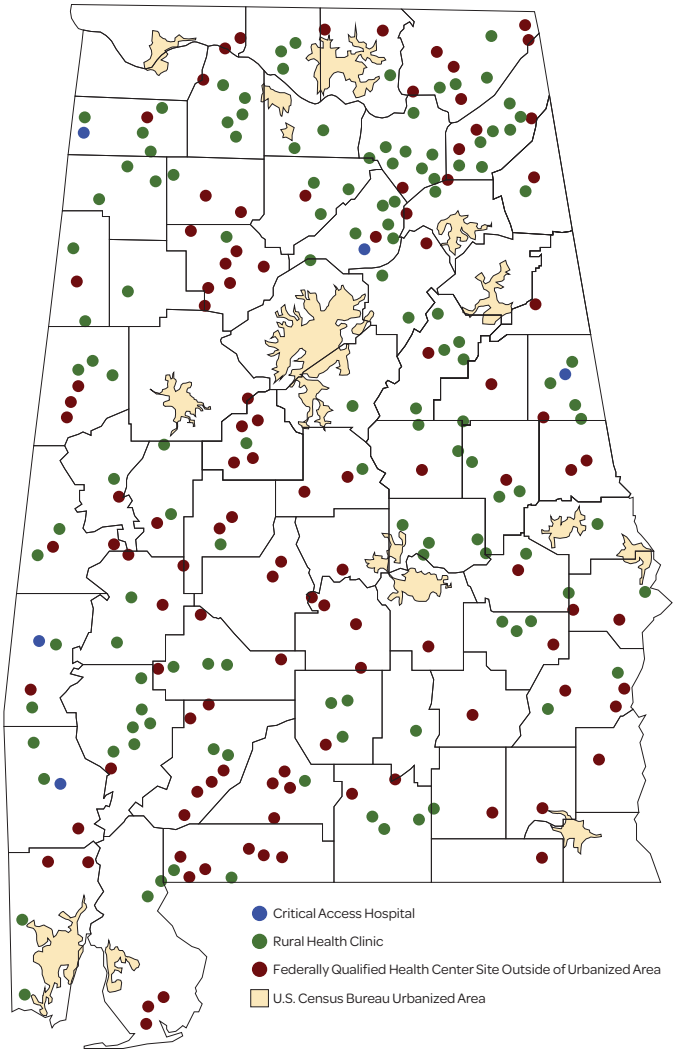
## Rural Healthcare Facilities

Rural and urban are defined at the county level since most data is not available at sub-county levels. The model used considers the three following widely accepted indicators that tend to describe accepted concepts of rural and urban areas:

1. Public education employment as a percentage of total non-agricultural employment.
2. Agricultural sales per square mile of land surface.
3. Population per square mile of land surface:

- AL's geography is considered 96 percent rural.
- Figure 2.1 shows AL's rural healthcare facilities as of October 2020. The graph includes critical access hospitals, rural health clinics, and FQHC sites.
- In 2019, AL had 5 critical access hospitals, 117 rural health clinics, 105 FQHC sites, and 48 short-term hospitals located outside urbanized areas.
- Some rural hospitals have faced financial challenges for staying open, such as low reimbursement rates, reduced patient volumes, and uncompensated care.[4]
- The disparity of access to care can be seen in Medicaid enrollment data. The annual statewide Medicaid eligibility for both adults and children is 24.7 percent. In rural populations, the Medicaid eligibility is 48.1 percent.

**Figure 2.1** – This map represents rural healthcare facilities in AL. Green circles are rural health clinics, blue circles are critical access hospitals, and red circles are FQHC sites outside of urban areas. The yellow patches are urban areas determined by the U.S. Census Bureau. Source: Rural Health Information Hub, 2019.



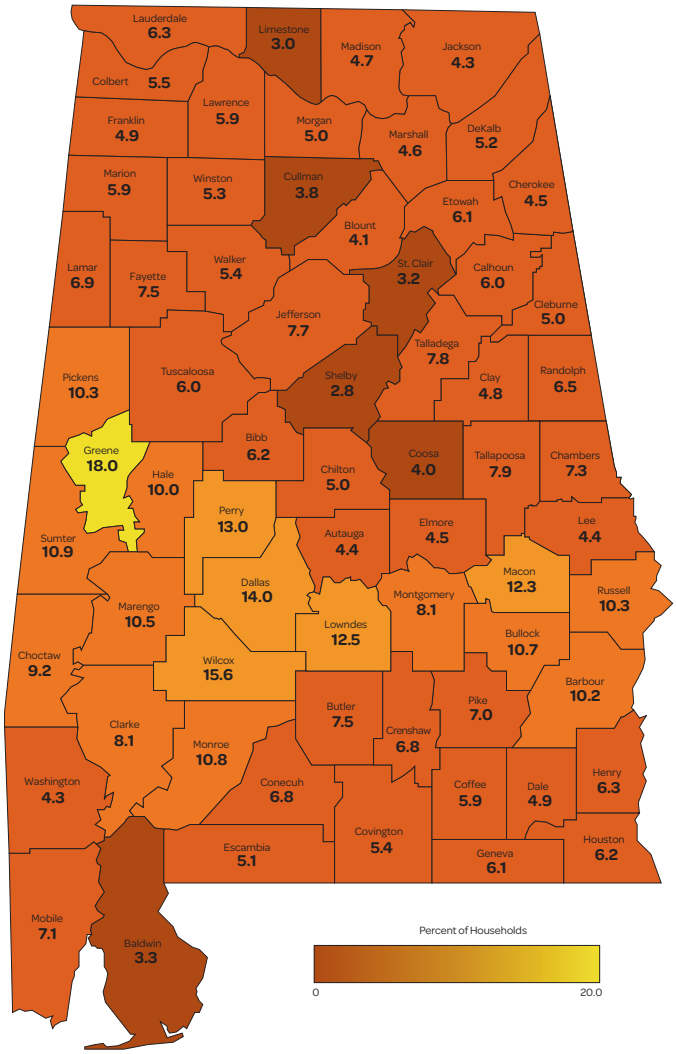

## Households without a Vehicle

AL has very few public transportation options outside of urban centers. In 13 counties, there are no public transportation options as of March 2021:[5]

- Overall, 5.8 percent of rural households did not have access to a car compared to the 4.4 percent of urban households between 2015-2019.[7]
- The Southwestern Public Health District had the highest concentration of households without a vehicle.

- Greene County had the highest percent of households without a vehicle (18.0 percent) between 2015-2019. This area is covered by the West Alabama Public Transportation system.[7,8]
- The second highest area was Wilcox County, with an estimated 15.6 percent of households did not have a vehicle between years 20152019. In this area, there is a rural transportation program that offers services for dialysis patients, individuals who need handicap transportation, and low-income work employees.[7,8]
- Statewide, travel time to work was increasing for residents. In the previous CHA, 15.9 percent of commuters took more than 35 minutes to arrive to work. In 2019, 21.5 percent of commuters took over 35 minutes to get to work.[7]

**Figure 2.2** – The percentage of households without vehicles is represented by county. Yellow counties indicate a higher proportion of households without vehicles. Source: U.S. Census Bureau.



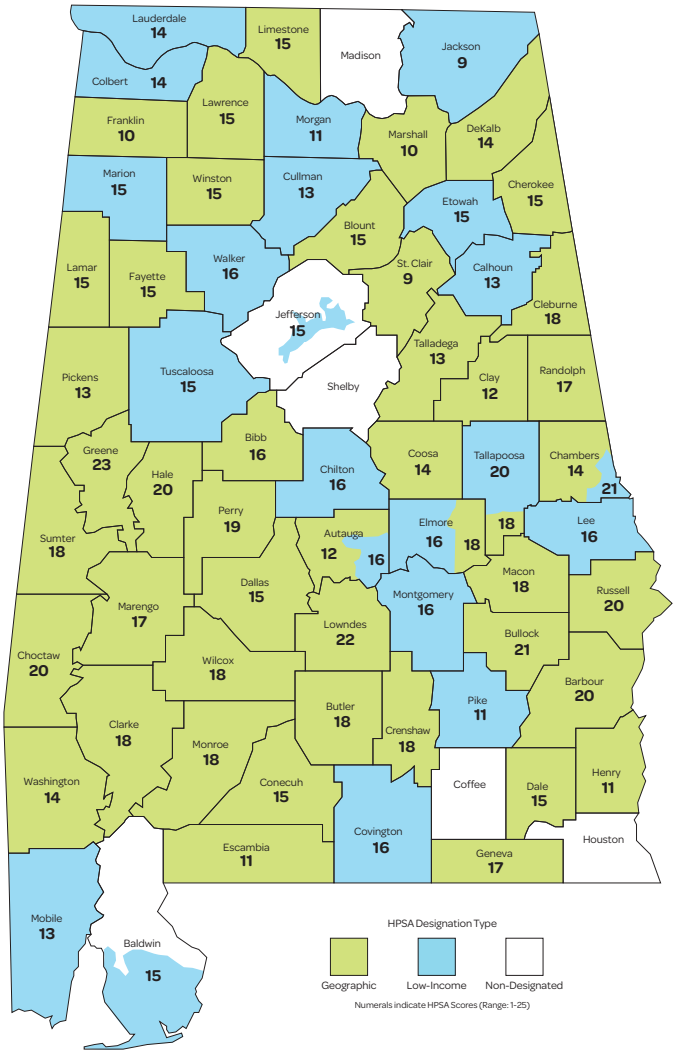

## Primary Care Health Professional Shortage Areas

HPSAs represent a geographical service area with shortages of providers compared to the whole population. The HPSA score is calculated by using a federally determined algorithm. The higher scores indicate a demand for additional services.

Primary care health professionals include medical and osteopathic doctors practicing family medicine, general medicine, general pediatrics, general internal medicine, or general obstetrics and gynecological (OB-GYN) services.

In 2015, the Office of Telehealth began an initiative to set up additional capacity for telemedicine services. By 2018, the Office of Telehealth partnered with providers to successfully offer telemedicine to rural communities by increasing services in all county health departments.

**Figure 2.3** – This map represents the HPSA score, ranging from 1 to 25, for each county. Source: ADPH Office of Primary Care and Rural Health.



## Data Sources

**Table 2.1 – Percentage of Alabamians Ages 18-64 Years Old with no Healthcare Coverage, 2019.** U.S. Census Bureau, American Community Survey, 1 Year Estimates: Quick Facts Table V2019, 2019 and CDC, BRFSS, 2019. Data requested March 2021.

**Figure 2.1 – Selected Rural Healthcare Facilities in AL.** USDHHS, Rural Health Information Hub., HPSA Survey 2011-2014. Data requested July 2020.

**Figure 2.2 – Percentage of Households without a Vehicle, 2015-2019.** U.S. Census Bureau, American Community Survey, 5 Year Estimates Table DP04, 2019. Data requested March 2021.

**Figure 2.3 – Primary Care HPSA, January 2019.** ADPH, Office of Primary Care and Rural Health, HPSA Survey 2011-2014. Data requested July 2020.

## Written Sources


1. Healthy People 2030, Access to Healthcare, 2020.
2. CDC, Access to Care, 2021.
3. Rural Health Information Hub, Healthcare Access in Rural Communities.
4. Rural Health Information Hub, Rural Hospitals, 2020.
5. AL Transit, Directory of Transportation Providers, 2021.
6. Rural Health Information Hub, Transportation to Support Rural Healthcare, 2020.
7. U.S. Census Bureau, American Community Survey, 1 Year Estimates, 2019.
8. ALDOT, Rural Transportation Program, 2021.


## Community Resources

**AL Department of Economic and Community Affairs**
Location: Montgomery County, AL
Type: State Government Organization

**ALSDE**
Location: Montgomery County, AL
Type: State Government Organization

**AL Department of Labor (ALDOL)**
Location: Montgomery County, AL
Type: State Government Organization

**AL Partnership for Telehealth**
Location: Montgomery County, AL
Type: State Government Organization

**AL Hospital Association**
Location: Montgomery County, AL
Type: State Government Organization

**AL Medicaid Agency's Non-Emergency Transportation Program**
Location: Montgomery County, AL
Type: For-profit Organization

**AL Office of Primary Care and Rural Health**
Location: Montgomery County, AL
Type: State Government Organization

**AL Primary Healthcare Association**
Location: Montgomery County, AL
Type: State Government Organization

**AL Rural Health Association**
Location: Montgomery County, AL
Type: Private Education Society

**Connecting AL**
Location: Montgomery County, AL
Type: Private Non-profit

**State Health Planning and Development Agency**
Location: Montgomery County, AL
Type: State Government Organization

**Kid One Transport**
Location: Montgomery County, AL
Type: Non-profit Organization

## 3. Pregnancy Outcomes
### Ranked AL's Third Health Indicator

Pregnancy outcomes remained in the top three primary health indicators for AL. Biological and social factors affecting the length of the pregnancy or the infant's survival may impact pregnancy outcomes.

The complications and possible loss of a baby is physically and mentally difficult, and a long recovery for both parents.[1] AL ranks 47th for infant mortality rate in 2019.[2] About 1 in 100 pregnancies result in stillbirth, which is the death of a baby before or during delivery.[1]

Strategies to improve pregnancy outcomes include breastfeeding and family planning. Breastfeeding is the best source of nutrition for most infants and can reduce the risk of health conditions for both infants and mothers.[2] Breastfeeding also helps strengthen the infant's immune and digestive system during the first year of their life.

Family planning can help reduce unexpected pregnancies, particularly in teen mothers. Contraception can increase safe sexual practices and protect individuals from sexually transmitted infections (STIs).[2] Reversible birth control methods can include intrauterine contraception, hormonal methods, and barrier methods. Permanent methods of birth control include female and male sterilization, such as tubal ligation and vasectomy.

**Vulnerable Populations**

Many social and biological factors also affect the time the mother begins prenatal care and the number of visits she receives. For AL, AA/black women have double the infant mortality rate than white women, highlighting racial and ethnic disparities present for expecting mothers to overcome.[2] Improving generational health outcomes start with family planning, lowering maternal stress, implementing good nutritional choices, detecting and preventing diabetes.

**Geographic Variation**

The areas with the highest rates of teen pregnancy are in Wilcox and Greene counties. The areas with the highest rates of infant mortality are in Coosa and Greene counties. As demonstrated in this chapter, poor pregnancy outcomes mainly occur where there is a lack of public obstetrical services in the state.

**Topics Addressed for This Indicator are:**

- Inadequate prenatal care.
- Obstetrical services in AL, 1980-2019.
- Infant mortality.
- Low birth weight.
- Teen pregnancy.

**Highlights**

Data are collected by hospitals and transmitted electronically to ADPH Center for Health Statistics. Data are also retrieved from ADPH Office of Primary Care and Rural Health:

- The infant mortality rate was 7.7 deaths per 1,000 births for 2019. In the 2015 CHA, the infant mortality rate was 8.5 deaths per 1,000 births.
- The disparity of infant mortality in minority females is two times higher when compared to white females.
- Over 1 out of every 10 births in AL were babies born with low birth weights.

**Risk Factors:**

- Socioeconomic disadvantage.
- Failure of natural labor progression.
- Chronic health conditions.
- Inadequate prenatal care.
- Smoking, alcohol, and illicit drug use.
- Untreated STIs.
- Transportation to prenatal care.
- Stress or physical abuse during pregnancy.

## Inadequate Prenatal Care

Inadequate prenatal care is defined as seeking medical or prenatal services after the fourth month of pregnancy or prenatal care that included fewer than half of the recommended visits:[1]

- In 2019, 1 in 4 pregnancies in AL had inadequate prenatal care (25.8 percent). In the 2015 CHA, the percentage was similar; 24.8 percent had inadequate prenatal care.
- Urban areas have higher rates of inadequate prenatal care (27.2 percent) than rural areas (23.8 percent).
- Mothers who were not married during their pregnancy were more likely to not receive adequate prenatal care (34.4 percent) than mothers who were married (18.8 percent).
- Young mothers under 20 years old have the highest inadequate prenatal care rate (35.6 percent) than any other age group.

| Table 3.1 – Inadequate Prenatal Care, 2019 | | |
|---|---|---|
| | **Count** | **%** |
| **AL** | **15,115** | **25.8** |
| **U.S.** | **-** | **-** |
| **Public Health Districts** | | |
| Northern | 3,309 | 26.4 |
| Northeastern | 2,276 | 25.4 |
| West Central | 1,802 | 34.1 |
| Jefferson | 2,584 | 30.5 |
| East Central | 1,972 | 22.4 |
| Southeastern | 921 | 20.1 |
| Southwestern | 1,066 | 23.1 |
| Mobile | 1,185 | 22.1 |
| **Geographic Variation** | | |
| Rural | 5,761 | 23.8 |
| Urban | 9,354 | 27.2 |
| **Sex** | | |
| N/A | - | - |
| **Race/Ethnicity** | | |
| White | 8,851 | 23.3 |
| AA/black | 5,715 | 30.6 |
| Other | 549 | - |
| **Marital Status** | | |
| Not married | 9,019 | 34.4 |
| Married | 6,088 | 18.8 |
| **Mother's Age (in years)** | | |
| Under 20 | 1,424 | 35.6 |
| 20-24 | 4,499 | 29.5 |
| 25-29 | 4,660 | 25.0 |
| 30-34 | 3,007 | 21.8 |
| 35+ | 1,525 | 22.1 |
| **Mother's Education** | | |
| N/A | - | - |

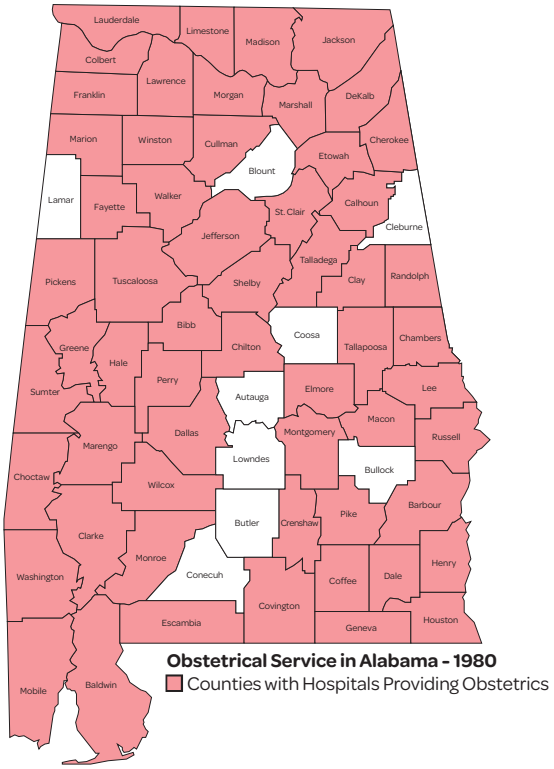
## Obstetrical Servicers in Alabama 1980-2019

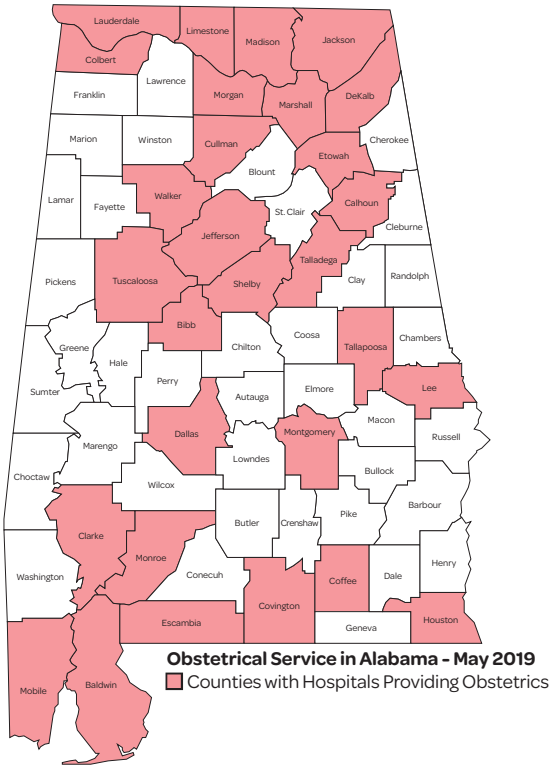
Many primary care physicians are expanding their rural obstetrical care due to the drastic reduction of available OB-GYN services in rural areas.[3] In 2019, 16 rural counties offered hospital-based obstetrical services in AL, compared to the 45 rural counties with hospitals providing obstetrical services in 1980.

Prenatal care availability may have been impacted by access to obstetrical services:

- According to the ADPH Center for Health Statistics Natality records, in 2019, there were 1,478 births in AL that received no prenatal care.
- In 2019, over 25 percent of all births in AL involved females who had less than adequate prenatal care during their pregnancy.[4]
- This percentage was the highest in rural Greene and Hale counties, 59.3 and 42.5 percent, respectively.

**Figure 3.1** – A picture of the loss of rural obstetrical services in rural AL in the past 40 years. Source: ADPH Office of Primary Care and Rural Health.



## Infant Mortality

Infant mortality is the number of children who died before their first birthday divided by the number of live births during the year.[1] In AL, the leading cause of infant deaths includes low birthweight and gestation under 37 weeks, congenital malformations, Sudden Infant Death Syndrome (SIDS), and bacteria sepsis of newborns:[2]

- The infant mortality rate was 7.7 deaths per 1,000 births for 2019. In the 2015 CHA, the infant mortality rate was 8.5 deaths per 1,000 births.
- The West Central Public Health District had the highest infant mortality rate of 10.8 deaths per 1,000 births.
- Coosa County had the highest infant mortality rate with 26.3 deaths per 1,000 births followed by Greene County (23.3 deaths), and Marengo County (21.8 deaths).
- AA/black mothers have twice the infant mortality rate than white mothers.

*In Table 3.2, this rate is unstable due to low sample.

**Table 3.2 – Infant Mortality, 2019**

| | Count | Rate per 1,000 births |
|---|---|---|
| **AL** | **449** | **7.7** |
| **U.S.** | **20,921** | **5.6** |
| **Public Health Districts** | | |
| Northern | 79 | 6.3 |
| Northeastern | 55 | 6.1 |
| West Central | 57 | 10.8 |
| Jefferson | 85 | 10.0 |
| East Central | 72 | 8.2 |
| Southeastern | 36 | 7.9 |
| Southwestern | 28 | 6.1 |
| Mobile | 37 | 6.9 |
| **Geographic Variation** | | |
| N/A | - | - |
| **Sex** | | |
| N/A | - | - |
| **Race/Ethnicity** | | |
| White | 191 | 5.6 |
| AA/black | 222 | 11.9 |
| Hispanic | 35 | 7.2 |
| **Household Income** | | |
| N/A | - | - |
| **Mother's Age (in years)** | | |
| 15-17 | 9 | 9.3* |
| 18-19 | 25 | 8.3 |
| 20-29 | 262 | 7.7 |
| 30-39 | 141 | 7.2 |
| 40+ | 11 | 9.9 |
| **Mother's Education** | | |
| Less than high school | 75 | 9.1 |
| High school or GED | 180 | 9.5 |
| Some college | 128 | 7.3 |
| College graduate or higher | 62 | 4.5 |

## Low Birth Weight

Low birth weight is defined as live-born infants with birth weight less than 5.5 pounds (2,500 g), and it was the third leading cause of infant morbidity and mortality in 2019:[2,5]

- In AL, 1 out of every 10 births were babies born with low birth weights.
- East Central District had the highest percentage of low birth weight infants in the state (12.5 percent).
- AA/black mothers' low birth weight prevalence (16.3 percent) was higher than white mother's (7.8 percent).

**Table 3.3 – Low Birth Weight, 2019**

| | Count | % |
|---|---|---|
| **AL** | **6,153** | **10.5** |
| **U.S.** | **311,245** | **8.3** |
| **Public Health Districts** | | |
| Northern | 1,163 | 9.3 |
| Northeastern | 788 | 8.8 |
| West Central | 601 | 11.4 |
| Jefferson | 928 | 10.9 |
| East Central | 1,095 | 12.5 |
| Southeastern | 474 | 10.4 |
| Southwestern | 458 | 9.9 |
| Mobile | 646 | 12.0 |
| **Geographic Variation** | | |
| Rural | 2,409 | 9.9 |
| Urban | 3,744 | 10.9 |
| **Sex** | | |
| N/A | - | - |
| **Race/Ethnicity** | | |
| White | 2,957 | 7.8 |
| AA/black | 3,042 | 16.3 |
| Other | 154 | - |
| **Mother's Marital Status** | | |
| Not married | 3,768 | 14.4 |
| Married | 2,382 | 7.4 |
| **Mother's Age (in years)** | | |
| 10-19 | 444 | 11.1 |
| 20-24 | 1,635 | 10.7 |

| | | |
|---|---|---|
| 25-29 | 1,837 | 9.8 |
| 30-34 | 1,415 | 10.3 |
| 35+ | 822 | 11.9 |
| **Mother's Education** | | |
| Less than high school | 941 | 11.5 |
| High school or GED | 2,281 | 12.1 |
| Some college | 1,878 | 10.7 |
| College graduate or higher | 1,041 | 7.5 |

## Teen Pregnancy

Teen pregnancy can be influenced by socio-economic factors and the availability of social support programs. The U.S. data includes females aged 1519 years old. For AL, teenage pregnancy includes females aged 1019 years old.[6]

- The Southeastern Public Health District had the highest teen pregnancy rate with 15.8 pregnancies per 1,000 females aged 10-19 years old.
- In 2019, Wilcox County had the highest teen pregnancy rate with 32.1 pregnancies per 1,000 females aged 10-19 years old, followed by Greene County at 25.8 pregnancies.
- St. Clair County had the lowest teen pregnancy rate, with 4.8 pregnancies per 1,000 females aged 10-19 years old.

**Table 3.4 – Teen Pregnancy, 2019**

| | Count | Rate per 1,000 females aged 10-19 years old |
|---|---|---|
| **AL** | **4,002** | **13.0** |
| **U.S.** | **171,674** | **16.7** |
| **Public Health Districts** | | |
| Northern | 865 | 12.9 |
| Northeastern | 595 | 11.7 |
| West Central | 416 | 14.8 |
| Jefferson | 449 | 10.9 |
| East Central | 583 | 12.9 |
| Southeastern | 369 | 15.8 |
| Southwestern | 352 | 14.0 |
| Mobile | 373 | 14.3 |
| **Geographic Variation** | | |
| Rural | 1,839 | 14.3 |
| Urban | 2,163 | 12.1 |
| **Sex** | | |
| N/A | - | - |
| **Race/Ethnicity** | | |
| White | 1,867 | - |
| AA/black | 1,615 | - |
| Hispanic | 484 | - |
| **Household Income** | | |
| N/A | - | - |
| **Mother's Marital Status** | | |
| Not married | 3,583 | - |
| Married | 419 | - |
| **Mother's Age (in years)** | | |
| Under 19 | 4,002 | 13.0 |
| **Mother's Education** | | |
| Less than high school | 1,763 | - |
| High school or GED | 1,816 | - |
| Some college | 417 | - |
| College graduate or higher | - | - |

## A Closer Look into Pregnancy Outcomes

AL rates of poor pregnancy outcomes are higher than the national average, specifically for mothers who are young, reside in rural areas, and identify with a minority racial or ethnic group. The ADPH Bureau of Family Health Services and community partner, the University of AL at Birmingham, conducted the Title V Maternal and Child Health (MCH) Block Grant Needs Assessment. This process was used to identify where AL experiences worse pregnancy outcomes and determine the best approaches to promote health equity.[7]

### Maternal and Child Health Assessment

The workgroup met in early 2020 to align evidence-based strategies with the identified needs from the MCH population. A total of 1,247 and community members from across the state participated in surveys, focus groups, and key informant interviews. The survey was disseminated in online and paper versions for three populations: family, providers, and adolescents. The family survey comprised the largest representative group (874 respondents) and respondents mostly identified as female. The provider survey respondents were primary healthcare providers representing specialties under family medicine, OB-GYN, pediatrics, and adolescent medicine. The adolescent survey had 86 respondents between the ages of 12 and 26 years old.

Additional qualitative information was collected through interviews and focus groups. The key informant interviews included 22 individuals who had expert knowledge in one or more MCH populations (i.e., reproductive, maternal, neonatal, child, or adolescent health) for AL. They were asked in their interview to address strengths, barriers, and gaps/areas of

need for local, state, public, and private groups. The stakeholder focus group had 147 participants and included underrepresented populations, such as women with disabilities; people who identified as lesbian, gay, bisexual, transgender, and queer (LGBTQ+); and Spanish-speaking families.

The health issues addressed in the survey were perinatal/infant, child, adolescent, children/youth with special healthcare needs, and women/maternal domains. In this section, the perinatal/infant health concerns are discussed with eight broad themes identified below. Several of these themes are further explored with supporting quantitative statistics and qualitative stakeholder feedback. Hale County was the only county not represented by a survey respondent in these results.

The eight identified perinatal/infant health themes were:

- Pregnancy and parenthood for teens, young families, and new parents.
- Safe sleep education.
- Breastfeeding.
- Infant mortality.
- Mental health.
- Reproductive and prenatal/perinatal care.
- Smoking, substance, and alcohol use.
- Health/dental care access, cost, and insurance.

### Safe Sleep Education

According to the National Vital Statistics System, the sleep-related sudden unexpected infant deaths rate for AL was 175.8 per 100,000 live births between 2015 – 2019.[8] This statistic is higher than the national average of 90.1 deaths per 100,000 in 2019. The American Academy of Pediatrics recommends infants should be placed to sleep on their backs until 12 months of age during a Safe to Sleep campaign that started in 1994.[9] According to the Pregnancy Risk Assessment Monitoring System (PRAMS), the U.S. average of infants placed on their backs was 79.6 percent in 2019. In AL, the percentage of infants placed on their backs has increased from 71.3 percent in 2015 to 79.6 percent in 2019.[10]

In response to determining care gaps, stakeholders identified that some parents and caregivers struggled to access essential supplies, such as cribs aligned with safe sleep guidelines. Key informants noted a need to recognize and appropriately address cultural issues around co-sleeping. Survey respondents further explained that having a baby in bed makes nighttime feedings easier (66 percent), having a baby sleep in bed with family is preferable (52 percent), and a baby will be safe in bed with family (50 percent).

### Breastfeeding

Breastfeeding is a natural source of nutrition and provides a healthy start for infants. AL breastfeeding percentage is lower than the national average, but it has been trending better with 77.8 percent of mothers able to breastfeed in 2019, according PRAMS.[10] Additionally, community members reported a perceived lack of support from service providers and older family members to encourage breastfeeding; they reported that mothers were prompted to use baby formula more from these groups. Lactation support was reported to be widely available for most women after delivery, but long-term support was unavailable in the community, especially for women who did not qualify for WIC or other support services.

### Infant Mortality

In AL, the infant mortality rate was 7.1 deaths per 1,000 live births in 2019, improving from the 2015 CHA rate of 8.5 deaths per 1,000 live births.[4] Despite the statewide decrease, AA/black mothers have twice the infant mortality rate of White mothers (11.9 deaths compared to 5.6 deaths per 1,000 live births). Hispanic mothers also have a high infant mortality rate (7.2 deaths per 1,000 live births).[4] Furthermore, stakeholders felt that limited access to consistent, high-quality care during the full spectrum of birth (primary, prenatal, postnatal, and mental health) might have contributed to the high infant mortality rate in AL. Service providers and key informants connected infant mortality to broader social and health issues such as co-sleeping, poverty, systemic racism, smoking, substance abuse, lack of access to family planning services, and the mother's overall health.

### Reproductive and Prenatal/Perinatal Care

As discussed earlier in this section, obstetric services have significantly decreased in rural areas. In the survey group, 23 percent of respondents reported they or someone in their house did not have health insurance. Stakeholders identified socioeconomic status, education, neighborhood crime and safety, literacy, and housing as barriers to health maintenance. Specific populations expressed unique experiences when interacting with reproductive health providers and care facilities. Women with disabilities expressed concerns about the lack of accessibility and accommodations during health appointments. This population also identified the lack of education tailored toward parenting with a disability. Spanish-speaking populations identified that health education materials in Spanish were either unavailable or poorly translated. LGBTQ+ stakeholders reported that LGBTQ+ centered care was difficult to find, noting that they were either refused care, received poor care, misgendered by office staff, or had the added burden of educating their service provider about their health considerations.

## Data Sources

**Table 3.1 – Inadequate Prenatal Care, 2019.** ADPH, Center for Health Statistics Birth and Death Files, 2019. Data requested March 2021.

**Figure 3.1 – A Picture of the Loss of Rural Obstetrical Services in AL, 1980 to 2019.** ADPH, Office of Primary Care and Rural Health, 2020. Data requested March 2021.

**Table 3.2 – Infant Mortality, 2019.** ADPH, Center for Health Statistics Birth and Death Files, 2019. Data requested March 2021.

**Table 3.3 – Low Birth Weight, 2019.** ADPH, Center for Health Statistics Birth and Death Files, 2019. Data requested March 2021.

**Table 3.4 – Teen Pregnancy, 2019.** ADPH, Center for Health Statistics Birth and Death Files, 2019. Data requested March 2021.

## Written Sources


1. CDC, Maternal and Infant Health, 2020.
2. ADPH, AL Perinatal Program, 2020.
3. Center for Medicare and Medicaid Services, Improving Access to Maternal Healthcare in Rural Communities, 2018.
4. ADPH, Center for Health Statistics, 2020.
5. WHO, Definitions for Newborns with Low Birth Weight, 2006.
6. CDC, Social Determinants and Eliminating Disparities in Teen Pregnancy, 2019.
7. ADPH MCH Services Block Grant, Comprehensive Needs Assessment, 2020.
8. National Vital Statistic System, SIDS Statistics, 2019.
9. Academy of Pediatrics, Back to Sleep Campaign, 2021.
10. PRAMS, Prevalence of Selected MCH Indicators for AL, 2019.


## Community Resources

**AL Abstinence Education Program**
Location: Dallas County, AL
Type: Federally Funded Program

**American Humane Association**
Location: Washington, DC
Type: Federal Government Organization

**AL Healthy Teen**
Location: Montgomery County, AL
Type: State Governmental Program

**AL Prison Birth Project**
Location: Lee County, AL
Type: Non-profit Organization

**AL Women's Wellness Center**
Location: Madison County, AL
Type: Health Center

**Black Mamas Matter Alliance**
Location: Atlanta, GA
Type: Advocacy Organization

**CDC**
Location: Atlanta, GA
Type: Federal Government Organization

**Cheaha Women's Health and Wellness**
Location: Calhoun County, AL
Type: Health Center

**Her Choice**
Location: Jefferson County, AL
Type: Health Center

**USDHHS**
**Office of Adolescent Health**
Location: Washington, DC
Type: Federal Government Organization

**Kids Count**
Location: Statewide
Type: Research Institution

**The National Campaign to Prevent Teen and Unplanned Pregnancy**
Location: Nationwide
Type: Public Health Campaign

## 4. Nutrition and Physical Activity
### Ranked AL's Fourth Health Indicator

AL identified nutrition and physical activity (NPA) as the fourth highest current health indicator. Most Americans are sedentary and may engage in limited physical activities. The American Heart Association® (AHA) recommends about 30 minutes per day of moderate physical activity, while the average American is either in a sitting or lying position for about 18 hours a day.[1]

NPA is combined in this report since they influence one another. Insufficient physical activity and poor nutrition can result in weight gain and chronic health conditions.[2] The Body Mass Index (BMI) is one way to calculate body fat by using weight divided by height, although other calculations are more accurate. A BMI between 25.0-29.9 kg/m$^2$ is categorized as overweight, 30.0-34.9 kg/m$^2$ is categorized as obese, and over 35 kg/m$^2$ is labeled morbidly obese.[3] In 2019, over one-third of Alabamians were considered at least obese.[2] Obesity is a risk factor for hypertension, diabetes, heart disease, sleep apnea, mental illness, and osteoarthritis.

#### Vulnerable Populations

AL is a very rural state, and many residents live in food deserts, i.e., places with limited access to fresh fruits and vegetables. The U.S. Department of Agriculture, (USDA) defines food insecurity as a "lack of access to enough food for an active, healthy life for all household members and limited availability of nutritionally adequate foods."[4] In AL, 16.1 percent overall and 20.8 percent of children struggled with food insecurity in 2019.[5]

#### Geographic Variation

AL has a state park system and green walkways in many urban centers. ADPH partnered with the AL Department of Transportation (ALDOT) to increase the number of walkable communities, which includes more sidewalks and slower speed limits to increase neighborhood mobility.

#### Topics Addressed for This Indicator are:

- Adults classified as obese.
- Adults consuming fruits less than once per day.
- Adults consuming vegetables less than once per day.
- Adults who participate in physical activity.

#### Highlights

The data presented for this information comes from BRFSS, which includes self-reported measures. Data are also retrieved from U.S. Census Bureau, AL Department of Conservation and Natural Resources, and community partners:

- Over one-third (36.1 percent) of AL adults are obese.
- Regular exercise and physical activity reduce the risk for many chronic diseases.

#### Risk Factors:

- Neighborhood safety.
- Physical pain.
- Education.
- Food access.
- Ages 45-65 years old.
- Overconsumption of beverages high in sugar content.
- Medications that contribute to weight gain.

## Adults Classified as Obese

Obesity is defined as a BMI of more than 30 kg/m$^2$. This medical condition can have associated adverse effects on the body, such as CVD, stroke, diabetes, cancer, and respiratory complications:

- In 2019, over one-third (36.1 percent) of AL adults were obese. The prevalence of obesity has gradually increased over the past 20 years. The national prevalence of obesity is 32.1 percent. AL had the seventh highest adult obesity prevalence in the U.S. for 2019.[7]
- According to BFRSS, 41.7 percent of Alabamians with an annual household income less than $15,000 were obese.
- AA/black individuals have a significantly higher prevalence of obesity than white individuals.

**Table 4.1 – Percentage of Adults Classified as Obese, 2019**

| | % | 95% CI |
|---|---|---|
| **AL** | **36.1** | **(34.6-37.7)** |
| **U.S. Median** | **32.1** | **-** |
| **Public Health Districts** | | |
| Northern | 34.7 | (30.8-38.6) |
| Northeastern | 34.4 | (30.7-38.1) |
| West Central | 41.1 | (36.7-45.5) |
| Jefferson | 35.1 | (31.1-39.2) |
| East Central | 34.7 | (30.2-39.2) |
| Southeastern | 38.8 | (34.2-43.5) |
| Southwestern | 38.2 | (33.9-42.5) |
| Mobile | 37.3 | (33.0-41.6) |
| **Geographic Variation** | | |
| N/A | - | - |
| **Sex** | | |
| Male | 36.0 | (33.7-38.4) |
| Female | 36.2 | (34.2-38.3) |

| Race | | |
|---|---|---|
| White | 32.5 | (30.8-34.3) |
| AA/black | 46.7 | (43.4-49.9) |
| **Household Income** | | |
| Less than $15,000 | 41.7 | (36.4-46.9) |
| $15,000-24,999 | 40.6 | (36.5-44.7) |
| $25,000-34,999 | 38.9 | (33.5-44.4) |
| $35,000-49,999 | 35.8 | (31.3-40.2) |
| $50,000+ | 33.2 | (30.8-35.6) |
| **Age (in years)** | | |
| 18-24 | 24.6 | (19.0-30.2) |
| 25-34 | 36.4 | (32.0-40.8) |
| 35-44 | 40.3 | (36.2-44.4) |
| 45-54 | 41.5 | (37.8-45.2) |
| 55-64 | 41.2 | (38.0-44.4) |
| 65+ | 31.3 | (29.0-33.6) |
| **Education** | | |
| Less than high school | 43.4 | (38.1-48.6) |
| High school or GED | 34.4 | (31.7-37.1) |
| Some college | 37.3 | (34.6-40.1) |
| College graduate or higher | 32.0 | (29.5-34.5) |

## Adults Consuming Vegetables Less Than Once Per Day

Nutrition is an essential tool to keeping a healthy lifestyle. Vegetable intake is an indicator of an overall healthy diet and may reduce the risk of many chronic diseases:

- Among those least likely to consume at least one serving of vegetables are lower educational attainment and a low household income.
- Nutrition was assessed through self-reported data on daily fruit and vegetable consumption. Over 1 in every 5 AL adults (22.3 percent) consume vegetables less than once per day.
- College graduates are significantly more likely to have consumed one or more servings of vegetables, compared to Alabamians whose highest level of education is high school graduate or less.
- AL males and females had similar percentages of consuming one or more servings of vegetables.

**Table 4.2 – Percentage of Adults Consuming Vegetables Less Than Once Per Day, 2019**

| | % | 95% CI |
|---|---|---|
| **AL** | **22.3** | **(20.9-23.7)** |
| **U.S. Median** | **20.3** | **-** |

| Public Health Districts | | |
|---|---|---|
| Northern | 19.2 | (15.8-22.5) |
| Northeastern | 22.2 | (18.8-25.7) |
| West Central | 20.6 | (16.9-24.4) |
| Jefferson | 25.8 | (22.0-30.0) |
| East Central | 24.1 | (19.5-28.7) |
| Southeastern | 23.7 | (19.3-28.1) |
| Southwestern | 21.7 | (18.1-25.3) |
| Mobile | 23.4 | (19.5-27.3) |
| **Geographic Variation** | | |
| N/A | - | - |
| **Sex** | | |
| Male | 23.0 | (20.8-25.1) |
| Female | 21.7 | (19.9-23.6) |
| **Race** | | |
| White | 19.3 | (17.7-20.9) |
| AA/black | 31.4 | (28.2-34.6) |
| **Household Income** | | |
| Less than 15,000 | 35.8 | (30.5-41.2) |
| $15,000-24,999 | 26.4 | (22.6-30.1) |
| $25,000-34,999 | 20.9 | (15.7-26.1) |
| $35,000-49,999 | 22.5 | (18.3-26.7) |
| $50,000+ | 14.9 | (13.0-16.8) |
| **Age (in years)** | | |
| 18-24 | 27.1 | (20.7-33.4) |
| 25-34 | 20.1 | (16.3-24.0) |
| 35-44 | 18.6 | (15.3-21.8) |
| 45-54 | 20.8 | (17.7-23.9) |
| 55-64 | 23.5 | (20.5-26.4) |
| 65+ | 24.2 | (22.0-26.4) |
| **Education** | | |
| Less than high school | 34.2 | (28.9-39.4) |
| High school or GED | 25.4 | (22.8-27.9) |
| Some college | 20.0 | (17.5-22.5) |
| College graduate or higher | 14.6 | (12.7-16.4) |

## Adults Consuming Fruits Less Than Once Per Day

Nutrition is an essential tool to keeping a healthy lifestyle. Fruit intake is an indicator of an overall healthy diet and may reduce the risk of many chronic diseases:

- According to BRFSS, nearly 1 in 2 AL adults (46.1 percent) do not consume at least one fruit serving each day, including 100 percent fruit juices.
- College graduates are significantly more likely to have consumed one or more servings of fruit, compared to Alabamians whose highest level of education is high school graduate or less.

- White populations have a similar consumption of fruit servings compared to AA/black populations (47.7 percent compared to 44.9 percent).

| Table 4.3 – Percentage of Adults Consuming Fruit Less Than Once Per Day, 2019 | | |
|---|---|---|
| | % | 95% CI |
| **AL** | **46.1** | **(44.5-47.8)** |
| **U.S. Median** | **39.3** | **-** |
| **Public Health Districts** | | |
| Northern | 45.3 | (41.1-49.5) |
| Northeastern | 45.7 | (41.7-49.7) |
| West Central | 47.8 | (43.2-52.4) |
| Jefferson | 43.8 | (39.5-48.0) |
| East Central | 45.6 | (40.7-50.6) |
| Southeastern | 51.4 | (46.5-56.3) |
| Southwestern | 46.2 | (41.7-50.8) |
| Mobile | 47.1 | (42.5-51.6) |
| **Geographic Variation** | | |
| N/A | - | - |
| **Sex** | | |
| Male | 47.7 | (45.2-50.2) |
| Female | 44.7 | (42.6-46.9) |
| **Race** | | |
| White | 47.4 | (45.4-49.3) |
| AA/black | 44.9 | (41.6-48.2) |
| **Household Income** | | |
| Less than 15,000 | 50.1 | (44.9-55.4) |
| $15,000-24,999 | 47.3 | (42.8-51.7) |
| $25,000-34,999 | 47.1 | (41.1-53.0) |
| $35,000-49,999 | 42.5 | (37.7-47.2) |
| $50,000+ | 44.3 | (41.7-46.9) |
| **Age (in years)** | | |
| 18-24 | 45.4 | (38.6-52.3) |
| 25-34 | 48.2 | (43.4-53.0) |
| 35-44 | 44.2 | (40.0-48.4) |
| 45-54 | 48.2 | (44.4-51.9) |
| 55-64 | 48.8 | (45.5-52.1) |
| 65+ | 42.9 | (40.4-45.4) |
| **Education** | | |
| Less than high school | 49.0 | (43.6-54.5) |
| High school or GED | 48.4 | (45.4-51.5) |
| Some college | 47.3 | (44.3-50.3) |
| College graduate or higher | 39.5 | (36.9-42.1) |

## Adults Who Participate in Physical Activities

Regular exercise and other physical activities reduce the risk for many chronic diseases. An individual may experience barriers to physical activity due to their environment and access to safe neighborhoods:

- Current physical activity guidelines recommend adults participate in at least 150 minutes of moderate aerobic activity each week and participate in muscle-strengthening exercises two or more days per week.
- Conversely, 31.5 percent of AL adults did not meet the recommended physical activity guidelines to stay healthy and prevent chronic disease.
- Males are more likely to meet recommended physical activity levels than females.
- Physical activity decreases with age. In young adults 1824 years old, 3 out of 4 reports meeting physical activity standards. In adults over 65 years old, 3 out of 5 reports meeting physical activity standards.

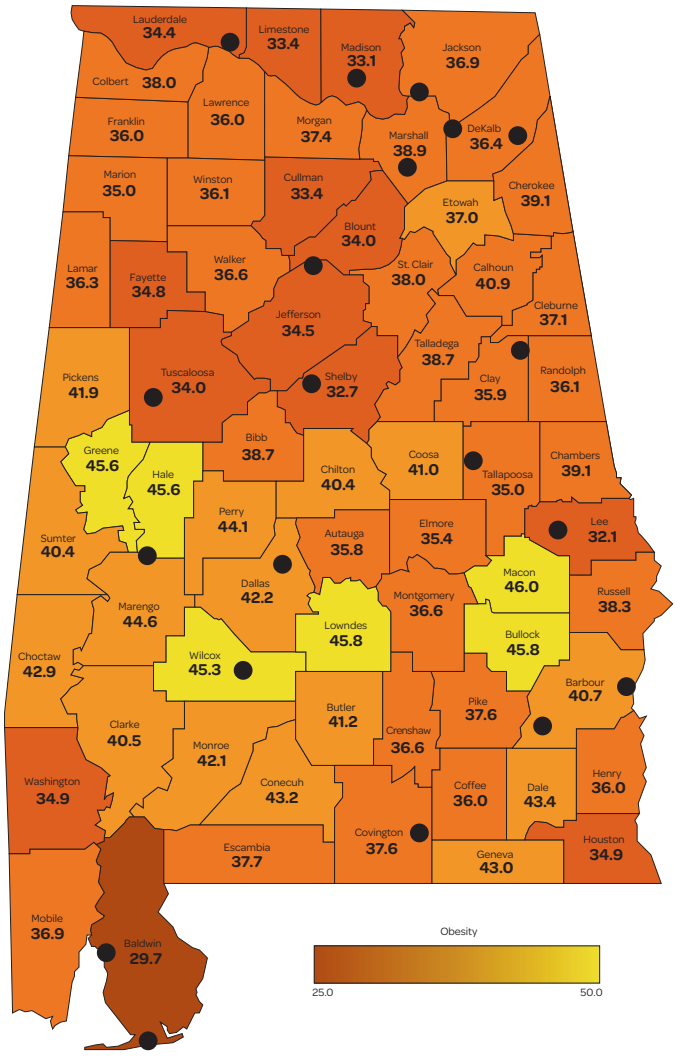
| Table 4.4 – Percentage of Adults Who Reported Doing Any Physical Activity in the Past Month, 2019 | | |
|---|---|---|
| | % | 95% CI |
| **AL** | **68.5** | **(67.0-70.0)** |
| **U.S. Median** | **73.7** | **-** |
| **Public Health Districts** | | |
| Northern | 69.7 | (66.1-73.4) |
| Northeastern | 70.3 | (66.9-73.7) |
| West Central | 66.1 | (61.9-70.3) |
| Jefferson | 69.9 | (66.2-73.7) |
| East Central | 67.8 | (63.3-72.3) |
| Southeastern | 63.3 | (58.7-67.8) |
| Southwestern | 66.9 | (63.0-70.8) |
| Mobile | 69.7 | (65.8-73.6) |
| **Geographic Variation** | | |
| N/A | - | - |
| **Sex** | | |
| Male | 71.7 | (69.5-73.9) |
| Female | 65.7 | (63.7-67.6) |
| **Race** | | |
| White | 69.0 | (67.3-70.7) |
| AA/black | 64.7 | (61.7-67.7) |
| **Household Income** | | |
| Less than $15,000 | 57.3 | (52.3-62.3) |
| $15,000-24,999 | 60.4 | (56.3-64.5) |
| $25,000-34,999 | 63.2 | (57.5-68.9) |
| $35,000-49,999 | 69.4 | (65.2-73.5) |
| $50,000-74,999 | 79.0 | (77.0-81.0) |
| **Age (in years)** | | |
| 18-24 | 77.6 | (72.3-82.9) |
| 25-34 | 72.4 | (68.1-76.6) |
| 35-44 | 70.4 | (66.6-74.2) |
| 45-54 | 69.1 | (65.7-72.5) |

| | | |
|---|---|---|
| 55-64 | 63.1 | (59.8-66.3) |
| 65+ | 63.4 | (61.1-65.8) |
| **Education** | | |
| Less than high school | 57.1 | (51.9-62.2) |
| High school or GED | 63.2 | (60.4-65.9) |
| Some college | 70.5 | (68.0-73.1) |
| College graduate or higher | 80.4 | (78.4-82.4) |

## A Closer Look into Nutrition and Physical Activity

Each year, chronic diseases account for 70 percent of all deaths in the U.S. Obesity, physical inactivity, and poor nutrition are modifiable behaviors that contribute to chronic diseases, specifically heart disease, stroke, diabetes, and cancer.[7] Vulnerable populations may have difficulties achieving recommended levels of physical activity and accessing nutritionally dense foods. For example, rural populations may have a longer commute to grocery stores, parks, and recreation centers; thus, any additional barriers in their physical and built environment can lead to different levels of health risks, needs, and outcomes compared to urban populations. In this section, parks and quality food access were further explored for their association to health outcomes of Alabamians.

**Figure 4.1** – This map examines the prevalence of obesity and locations of the 21 state parks in AL. Source: CDC Places, which combines information from BRFSS and American Community Survey 2013-2017 datasets.




### Walk Score and Access to State Parks

Walking is a low-cost, low-impact physical activity to maintain and improve health.[7] The AHA recommends that adults get at least 30 minutes of moderate-intensity aerobic exercise 5 or more days a week, with strength training activities at least 2 days per week.[8] Only 68.5 percent of Alabamians met the reported physical activity guidelines in 2019.[9]

A walk score is based on the walking distance (under one mile) to amenities such as stores, restaurants, and parks. A good walk score is above 70 and indicates low car dependence, multiple forms of available transportation, and that most errands can be accomplished on foot.[10] The average walk score in AL's higher population areas was 22 in 2019, indicating higher car dependence. Homewood, AL, had the highest walk score, followed by Birmingham and Tuscaloosa (41, 35, and 33, respectively).[10] Rural areas did not receive a score, which highlights pedestrian walkability concerns and the lack of alternative forms of transportation. The score also does not account for diverse populations such as children, seniors, or people living with disabilities.

Parks may be a way for individuals in non-urban areas to increase their physical activity in public spaces. Access to parks, trails, greenways, and recreational centers provides opportunities to support a more active lifestyle and improve neighborhood safety.[11] AL state parks are managed by the AL Department of Conservation and Natural Resources. AL has 21 state parks that cover approximately 48,000 acres.[12]

A park is more likely to be used if it is nearby and easy to access.[11] Individuals deprived of green areas may be deprived of physical activity. Most state parks are directly outside urban centers where greenways, local parks, and walkways also exist. Figure 4.1 overlays the prevalence of obesity with the 21 state park locations. The areas with higher obesity rates are more rural and have fewer areas of walk space. The West Central District has the highest obesity rate in the state (41.1 percent in 2019).

### Food Insecurity and Health Outcomes

A healthy, well-rounded diet includes 2 cups of fruit and 2.5 cups of vegetables every day.[13] Only 46.1 percent of Alabamians eat the recommended servings of fruit per

day, and 22.3 percent eat the recommended vegetables per day. The availability and affordability of healthy foods allows people to make healthier food choices.[14] The ADPH NPA Division uses ongoing surveillance to develop effective dietary interventions and to understand the barriers Alabamians face to eating healthy foods regularly. Food-related environmental factors influence available food choices and diet quality, such as:

- Ongoing supply of healthy foods and food insecurity.[14]
- Access to transportation to food diverse areas.[14]
- Proximity to healthy food retailers.[14]
- Food costs and grocery tax between food retail providers.[14]
- Convenience of purchasing and making healthy meals.[14]

USDA defines food insecurity as a periodic lack of access to enough food for an active, healthy life for all household members and limited availability of nutritionally adequate foods.[15] AL's food insecurity rate was 16.1 percent in 2019, with an estimated 788,250 people who experienced food insecurity.[5] Additionally, meal gaps refer to the population in between secure and insecure. Every county had residents who did not qualify for Federal Nutrition Assistance but still experienced food insecurity. Nearly 1 in 4 children and 1 in 6 adults experienced hunger regularly.[5]

Another environmental factor is the convenience of purchasing meals and access to food diverse areas. Food deserts refer to a residential area with no immediate access to quality foods that support a healthy diet (greater than 1 mile for urban areas and greater than 10 miles in rural areas).[16] Rural populations may be experiencing insecurity due to living in a food desert. In urban areas, residents often live close to grocery stores compared to rural areas, where multiple modes of transportation may be required to access the closest grocery store.[16] Furthermore, 5.8 percent of rural households in AL do not have a car compared to 4.4 percent of urban households. Since 43.0 percent of the population live in rural counties, lack of transportation and the distance from grocery stores negatively impacts food security for many Alabamians.

Five food banks serve and distribute food throughout AL.[5] In 2019, the Community Food Bank of Central AL completed a regional study to assess the general health, living situation, nutrition knowledge, and experiences with hunger and food pantries. The Central AL area covers 12 counties and feeds over 60,000 people at risk of hunger per month. Eighty-two percent of the served population reported running out of food and not having enough money to buy more.[17]

Financial constraints are the most reported reasons for food insecurity. The average American household spent $5,576.21 on food from home and restaurants in 2019, which was 9.6 percent of their disposable income.[18] Affordability and access vary by income level. High-income areas are more likely to have access to grocery stores and healthy food options. A high-income household spent $13,987 on food, representing 8.0 percent of their income.[15,18] Low-income populations spent an average of $4,400 on food, representing 36.0 percent of their disposable income.[18] In the Community Food Bank study, 91 percent of the served population was unemployed, 62 percent were on disability support, and 27 percent were retired or unpaid caretakers. Over 80 percent of respondents made an income of less than $20,000 per year. For those with limited financial resources, respondents reported that fixed expenses (e.g., housing and medication costs) are usually covered first, leaving little for flexible expenses (e.g., food budgets).[17] The served population had to make difficult choices between food and other expenses.

The served population had to choose between:

- Food and medicine (73 percent).[17]
- Food and utilities (62 percent).[17]
- Food and transportation (54 percent).[17]
- Food and rent/housing costs (42 percent).[17]
- Food and educational expenses (17 percent).[17]

Most of the served population bought the cheapest food even if it was not the healthiest option (78 percent). Other strategies the population took to avoid hunger included getting help from family or friends (58 percent), buying food in dented or damaged packages to save money (50 percent), growing food in a garden (41 percent), and watered-down food or drinks to make them last longer (28 percent). Unaddressed food insecurity and poor diets lead to chronic illnesses such as heart disease, diabetes, and obesity.[14] The served population had a much higher prevalence of chronic diseases than the national and state averages:

- The served population reported an 80.0 percent high blood pressure prevalence compared to the state average of 42.5 percent in 2019.[17,19]
- The served population reported a 51.0 percent high cholesterol prevalence compared to the state average of 36.9 percent in 2019.[17,19]
- The served population reported a 44.0 percent diabetes prevalence compared to the state average of 13.9 percent in 2019.[17,19]

## Data Sources

**Table 4.1 – Percentage of Adults Classified as Obese, 2019.** CDC, BRFSS, 2018-2019. Data requested March 2021.

**Table 4.2 – Percentage of Adults Consuming Vegetables Less Than Once Per Day, 2019.** CDC, BRFSS, 2018-2019. Data requested March 2021.

**Table 4.3 – Percentage of Adults Consuming Fruit Less Than Once Per Day, 2019.** CDC, BRFSS, 2018-2019. Data requested March 2021.

**Table 4.4 – Percentage of Adults who Reported Doing any Physical Activity in the Past Month, 2019.** CDC, BRFSS, 2018-2019. Data requested March 2021.

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14. CDC, Healthy Food Environments: Improving Access to Healthier Food, 2020.
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17. Community Food Bank of Central AL, Hunger in Central AL, 2020.
18. USDA Economic Research Service, Consumer Expenditure Survey, 2021.
19. CDC BRFSS, Chronic Disease Outcomes in AL, 2020.


## Community Resources

**AL Child Nutrition Program**
Location: Statewide
Type: State Government Program

**AL Cooperative Extension System**
Location: Montgomery County, AL
Type: Nonprofit Organization

**AL Office of Minority Health**
Location: Montgomery County, AL
Type: State Government Organization

**AL Office of Women's Health**
Location: Montgomery County, AL
Type: State Government Organization

**AL State Parks Division**
Location: Montgomery County, AL
Type: State Government Organization

**Auburn Outdoor Adventures**
Location: Lee County, AL
Type: Non-profit Organization

**Community Supported Agriculture**
Location: Etowah County, AL
Type: Non-profit Organization

**Community Supported Agriculture**
Location: Lauderdale County, AL
Type: Non-profit Organization

**Farmers Market Authority**
Location: Montgomery County, AL
Type: State Government Organization

**Lakeshore Foundation**
Location: Jefferson County, AL
Type: Non-profit Organization

**National Center for Physical Activity and Disability**
Location: Nationwide
Type: Federally Funded Program

**National Physical Activity Plan**
Location: Nationwide
Type: Federally Funded Program

**Produce for Better Health Foundation**
Location: Montgomery County, AL
Type: Nonprofit Organization

**Scale Back AL**
Location: Montgomery County, AL
Type: State Funded Program

**Sweet Grown AL**
Location: Montgomery County, AL
Type: Non-profit Organization

**YMCA**
Location: Nationwide
Type: Non-profit Organization

## 5. Social Determinants of Health

### Ranked AL's Fifth Health Indicator

Social determinants of health (SDOH) topics are a collection of factors identified as the fifth highest health indicator for AL. While SDOH are upstream objectives influencing all health indicators in this SHA, the community partners wanted to highlight and discuss specific methods to create opportunities for AL residents.

According to Healthy People 2030, the five SDOH topics are economic stability, education access and quality, healthcare access and quality, neighborhood and built environment, and social/community context.[1]

SDOH differs from access to care for they are a more permanent, societal structure that prevents adequate health factors. They can affect a wide range of physical health, mobility, and quality of life outcomes.

**Vulnerable Populations**

SDOH plays a significant role in AL's citizens' health, well-being, and quality of life and contributes to health disparities and inequities. Income disparities, education, poverty, unemployment, food insecurity, housing, and family social support services need to be addressed as a system to build environments that contribute to wellness and support opportunities for healthy choices.[1]

**Geographic Variation**

While there are some lifestyle and behavioral choices, each individual is located within a specific community with local policies and government that impact how they can access health opportunities. For example, AL is primarily a rural state, which can create physical barriers to care, and social stigmas can prevent individual's knowing or feeling comfortable accessing a service.

**Topics Addressed for This Indicator are:**

- AL Black Belt.
- Income disparities.
- Education and poverty.
- Unemployment rate.
- Food insecurity.
- Housing assistance.
- Family and social support.
- Social Vulnerability Index (SVI).

**Highlights**

Data is from collaborating state agencies such as the ALDOL and ALSDE. Data are also retrieved from U.S. Census Bureau, University of AL, and CDC Agency for Toxic Substances and Disease Registry (ATSDR):

- According to USHUD, as of January 2019, it was estimated 3,261 persons experienced homelessness on any given day in AL.
- In 2019, 16.3 percent of AL households were unable to provide adequate food for one or more household members due to lack of resources compared to the 12.3 percent in U.S. households.[2]

**Risk Factors:**

- Rural areas.
- Low income housing.
- High school education attainment or below.
- Incarceration.
- Unemployment.

## The Alabama Black Belt

SDOH can create disparities with care delivery and health outcomes. One area in AL with a high SDOH burden is called the Black Belt.

Once named for the color of its fertile soil and later for the high percentage of AA/black residents, 11 states make up the Black Belt throughout the southeast.

The AL Black Belt consists of 18 counties: Barbour, Bullock, Butler, Choctaw, Crenshaw, Dallas, Greene, Hale, Lowndes, Macon, Marengo, Montgomery, Perry, Pickens, Pike, Russell, Sumter, and Wilcox:

- In 2019, the AL Black Belt had a 40 percent white and 56 percent AA/black population.[3]
- In 2019, almost 1 in 4 residents lived below the poverty rate (23.7 percent).[3]
- The per capita income in this region was $24,387.[3]

**Figure 5.1** – The AL Black Belt contains 18 counties (highlighted green on the map). Source: University of AL in Tuscaloosa.

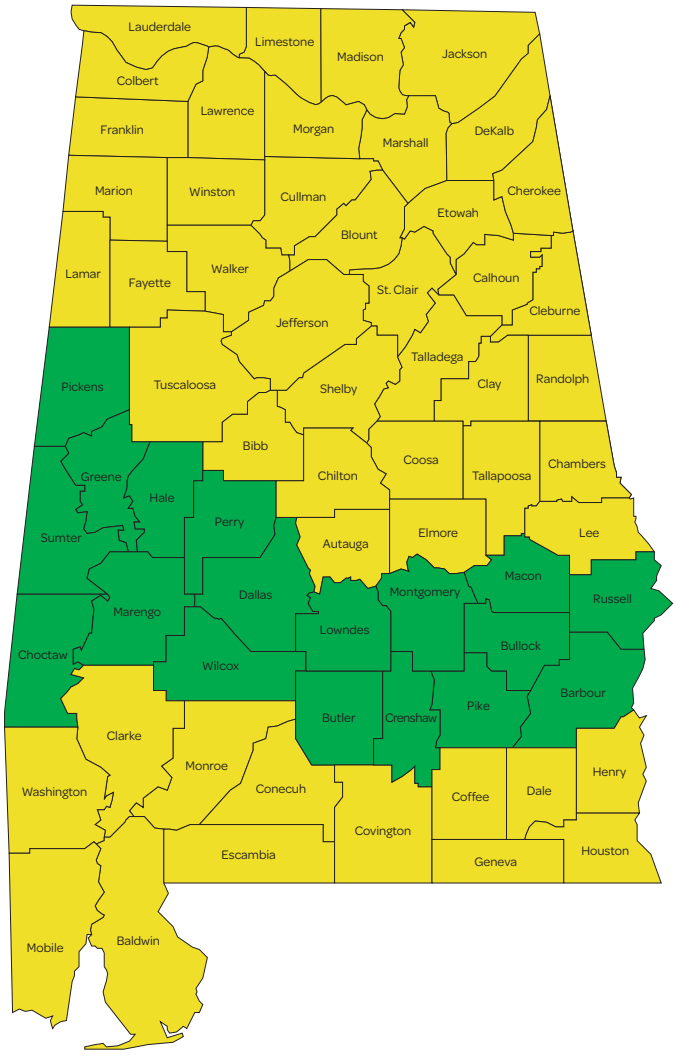
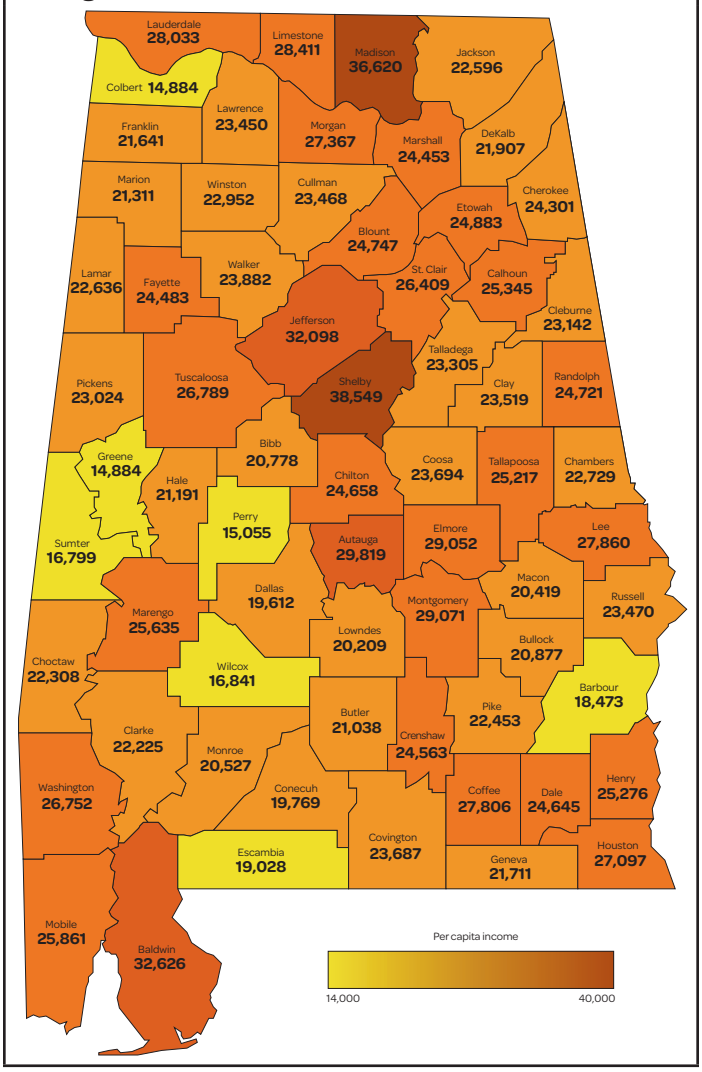



**Figure 5.2** – This map describes income variation throughout AL. Source: U.S. Census Bureau.




## Income Disparities

Income equality is how finances are distributed throughout a population. About 15 percent of AL's population lives below the 200 percent poverty rate:[3]

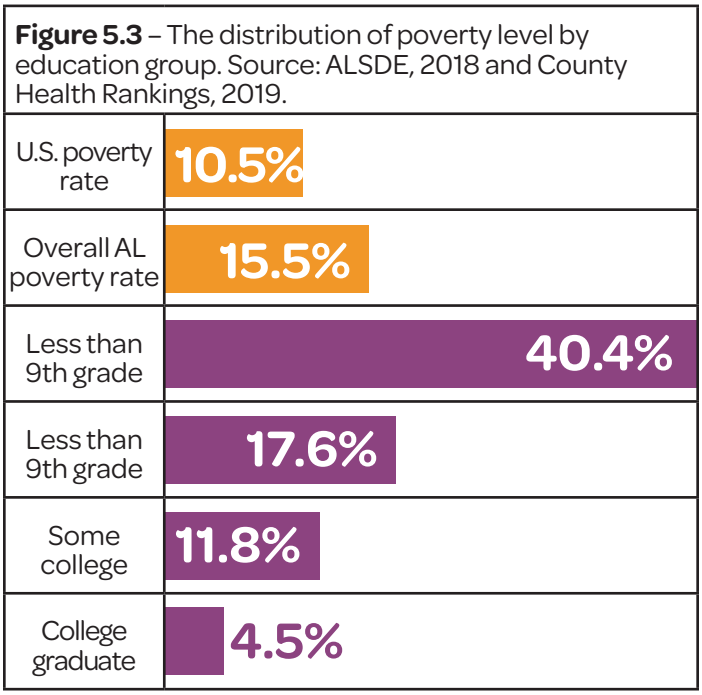
- In 2019, AL's poorest counties were Dallas, Perry, Greene, and Bullock, respectively. These counties are located within the AL Black Belt.
- The average poverty rate is slightly higher for rural areas at 18.4 percent compared to urban areas at 16.1 percent for 2019. Alabama households in urban areas have per capita incomes that are roughly $6,000 more per home.[3]
- Madison and Shelby counties have the highest per capita income.

## Education and Poverty

Education is an indicator for chronic disease because it helps understand employment options, income mobility, and basic literacy.[4] For adults below the poverty status, income was correlated with education level:

- Two out of every five people with less than a high school education live below the federal poverty line.
- Approximately 17.6 percent of individuals who have an educational achievement of a high school diploma or GED live below the poverty line.

**Figure 5.3** – The distribution of poverty level by education group. Source: ALSDE, 2018 and County Health Rankings, 2019.



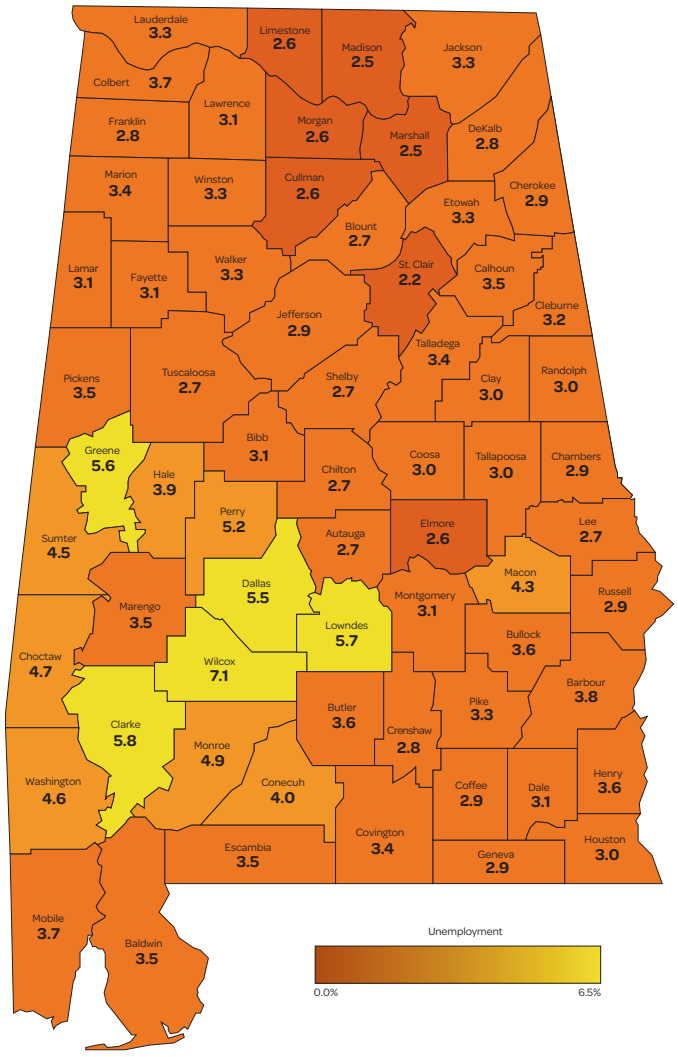

## Unemployment Rate

Employment is another indicator for SDOH. Good working conditions, employee benefits, and work stability often contribute to wellness and support opportunities for healthy choices.[5]

The AL labor force is a way to determine perceived economic stability:

- During the early Coronavirus Disease 2019 (COVID-19) pandemic, the unemployment rate was 7.7 percent (as of July 22, 2020).[6]
- For 2019, the average unemployment rate was 3.0 percent, with 67,883 individuals out of work.
- In 2019, the unemployment rate in rural areas was 4.6 percent compared to urban areas with 4.3 percent.
- Wilcox County had the highest unemployment rate at 7.2 percent in 2019.
- The Southwestern Public Health District had the most counties with high unemployment rates.

**Figure 5.4** – This map describes the percent of unemployed throughout AL in 2019. Source: ALDOL.




## Food Insecurity

Food insecurity is defined as "a household-level economic and social condition of limited or uncertain access to adequate food."[7] Lacking constant access to food can lead to binge eating, malnutrition, and mineral deficiencies.

In 2019, 16.3 percent of AL households were unable to provide adequate food for one or more household members due to lack of resources compared to the 12.3 percent in U.S. households.[2] This is a decrease from 2015 where it was 16.7 percent in AL.

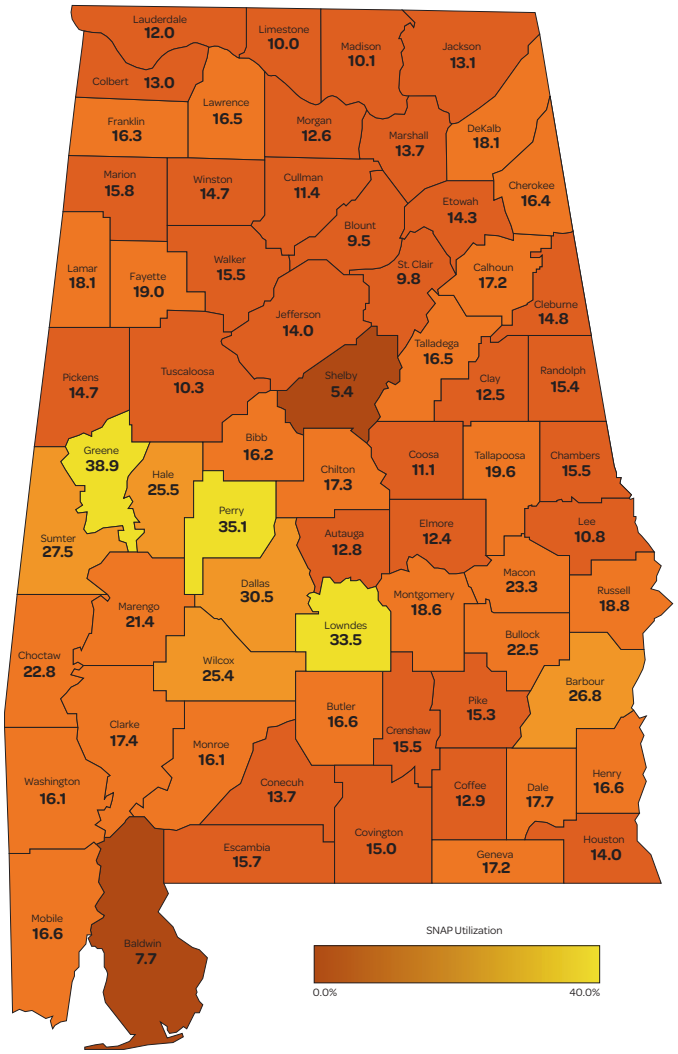
According to USDA, AL was the sixth largest food insecure area in the U.S. in 2017-2019.[7] Food insecurity is particularly high among:

- Low income households.
- Households with children, especially those with a single parent.

- Single person dwelling homes.
- AA/black and Hispanic households.

Food insecurity was measured by Food Stamps or the Supplemental Nutrition Assistance Program (SNAP) utilization. In 2019, 14 percent of households in AL received Food Stamps/SNAP. The median income among households that received food stamps was $18,515.[3]

**Figure 5.5** – This map describes the food insecurity throughout AL by percentage of households SNAP utilization. Source: U.S. Census Bureau.




## Housing Assistance

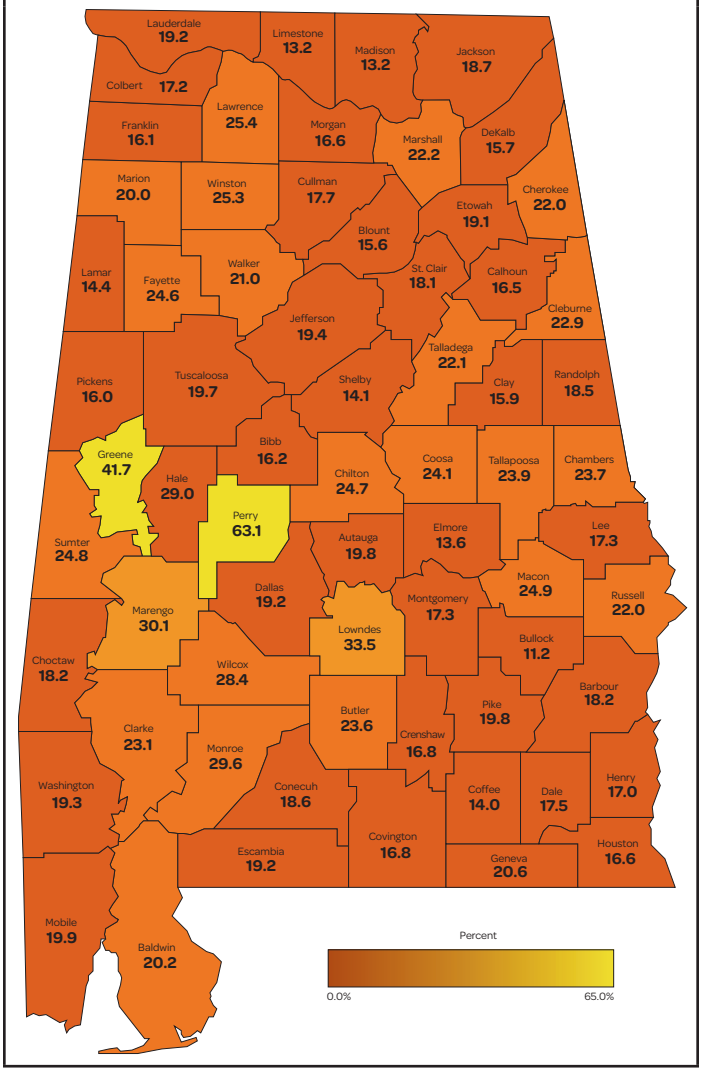
According to USHUD, as of January 2019, it was estimated 3,261 persons experienced homelessness on any given day in AL.

In Figure 5.6, the map shows a distribution of individuals whose monthly mortgage is greater than 35.0 percent of the household income.

- According to U.S. Census Bureau, 19.1 percent of AL households have over one-third of their household income devoted to monthly mortgage or rent payments in 2018.
- Perry County had the highest percentage with an average 63.1 percent of its population with a mortgage higher than one-third their income between 20152019.[8]
- There was an average of 1,867,893 households between 20152019 with 31.2 percent of units used for renting.[8]

Federal Housing Assistance gives aid to seniors, children, and people living with disabilities. The largest rental assistance support is through housing choice vouchers and public housing.

**Figure 5.6** – This map describes the percentage of homeowners with a high cost burden mortgage. Source: U.S. Census Bureau.



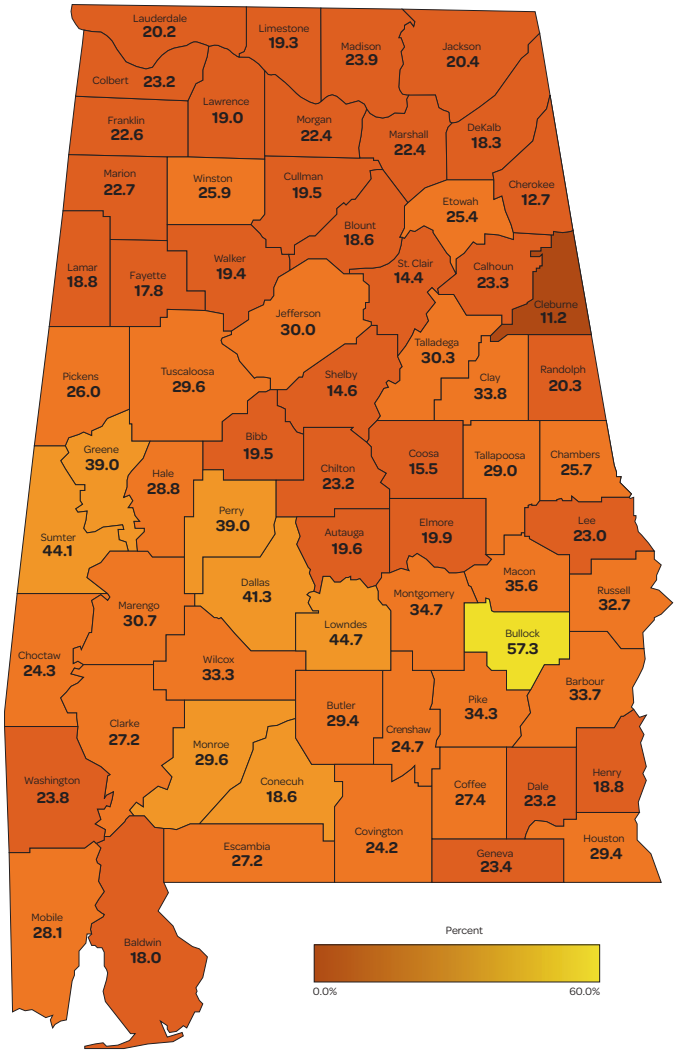
## Family and Social Support

Positive relationships at home, at work, and in the community can help families find support and improve their well-being. Social capital refers to the interpersonal support and trust between other civic associations.[9]

In Figure 5.7, the indicator for this section is the percentage of single-parent household for children under 18 years old:

- Between 2015-2019, approximately 1 out of every 4 children (25.2 percent) lived in a single-parent household in AL.[10]
- Adults and children living in single-parent households have a higher risk of stress and adverse health outcomes.[9]

**Figure 5.7** – This map describes percentage of single-parent households in each county. Source: U.S. Census Bureau.




## Social Vulnerability Index

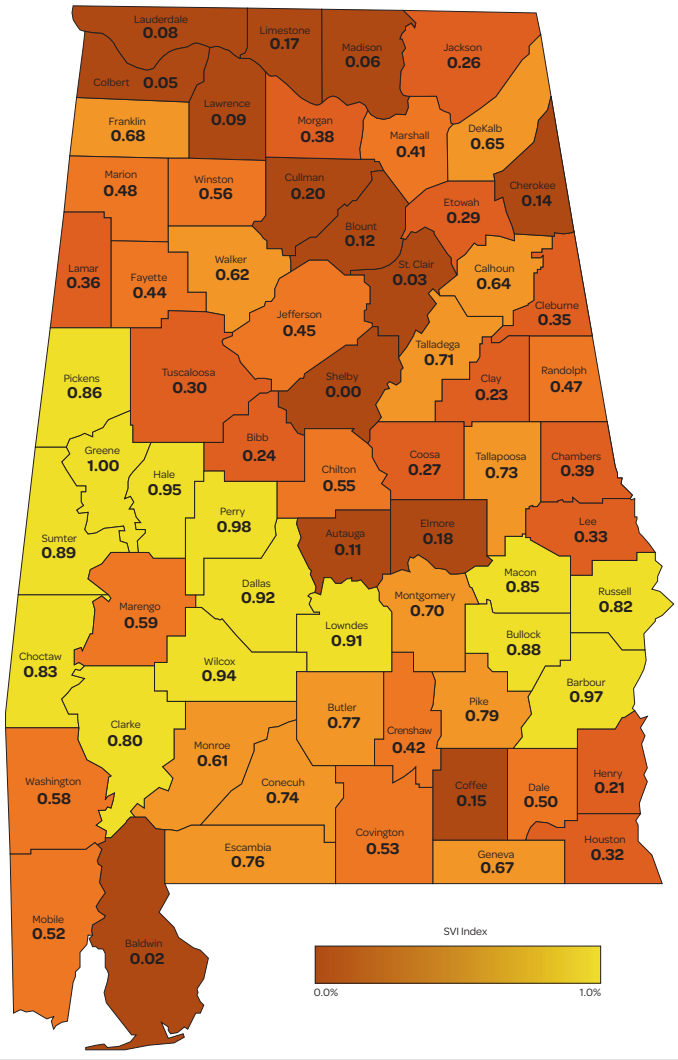
Geospatial determinants of health include neighborhood infrastructures and how a person's community affects an individual. CDC created a risk score based on multiple environments, including natural, built, population connectivity, social/behavioral, and health policy.[11] This can provide crucial information for emergency preparedness and address endemic SDOHs in a community.

The 15 social factors are calculated within a score that combines the following factors: poverty, unemployment, income, education status, lack of vehicle access, multiunit structures, mobile housing units, crowded housing, group quarters, adults living with disabilities, children, older population, single- parent households, minority groups, and primary language other than English.[11]

The scores are ranked from 0 to 1, where a score closer to 1 indicates an area of high vulnerability:

- The West Central Public Health District had a higher average of SVIs for 2018.

**Figure 5.8** – This map describes the proportion of social vulnerability on a scale from 0 to 1. Source: CDC ATSDR Community Engagement.



## Data Sources

**Figure 5.1 – AL Black Belt Counties.** University of AL in Tuscaloosa, 2019. Data requested March 2021.

**Figure 5.2 – AL Per Capita Income, 2019.** U.S. Census Bureau, American Community Survey 1-Year Estimates, Quick Facts Table County Level V2019, 2019. Data requested December 2020.

**Figure 5.3 – AL Below-Poverty Status by Education Level, 2019**. ALSDE, 2018 and County Health Rankings, 2019. Data requested July 2020.

**Figure 5.4 – Unemployment Rate, 2019.** ALDOL, 2019. Data requested July 2020.

**Figure 5.5 – Food Stamp/SNAP Utilization, 2015-2019.** U.S. Census Bureau, American Community Survey 5-Year Estimates Selected Social Characteristics Table DP03, 2019. Data requested December 2020.

**Figure 5.6 – Monthly Mortgage Greater than 35 Percent of Income, 2015-2019**. U.S. Census Bureau, American Community Survey, 5-Year Estimates Selected Housing Characteristics DP04, 2019. Data requested December 2020

**Figure 5.7 – Children in Single Parent Households, 2019**. U.S. Census Bureau, American Community Survey 5-Year Estimates Selected Social Characteristics Table DP02, 2019. Data requested December 2020.

**Figure 5.8 – SVI, 2018**. CDC, ATSDR Community Engagement. Data requested March 2021.

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2. AL Food Bank Association, Hunger in AL, 2019.
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8. U.S. Census Data, American Community Survey, 5 Year Estimate Table DP02, 2019.
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10. U.S. Census Data, American Community Survey, 5 Year Estimate Table DP04, 2019.
11. CDC, SVI, 2020.


## Community Resources

**Action for Healthy Kids**
Location: Montgomery County, AL
Type: Advocacy Program

**Adult Vocational Rehabilitation**
Location: Etowah County, AL
Type: Educational Facility

**AL Community Foundation**
Location: Montgomery County, AL
Type: Nonprofit Organization

**AL Possible**
Location: Statewide
Type: Non-profit Organization

**Continuums of Care**
Location: Statewide
Type: Federal Program

**Dothan Rescue Mission**
Location: Houston County, AL
Type: Homeless Shelter

**East AL United Way**
Location: Montgomery County, AL
Type: Nonprofit Organization

**FQHC**
Location: Statewide
Type: Medical Centers

**Firehouse Ministries**
Location: Jefferson County, AL
Type: Homeless Shelter

**Habitat for Humanity**
Location: Montgomery County, AL
Type: Nonprofit Organization

**Healthy People 2030**
Location: Nationwide
Type: Advocacy Program

**USDHHS**
Location: Washington, DC
Type: Federal Government

## 6. Sexually Transmitted Infections
### Ranked AL's Sixth Health Indicator

STIs are ranked sixth in priority for AL's health indicators. Reproductive health is the focal point for interventions involving sexual safety, maternal health, and child health. Many STIs have mandatory reporting requirements in AL, which allows ADPH to investigate areas within the state with high rates of chlamydia, gonorrhea, human immunodeficiency virus (HIV), and syphilis. STIs are spread through sexual contact and bodily fluids. Condom use and communication with partners about possible exposures are highly recommended to prevent the spread of STIs.[1]

The number of new HIV infections continues to outweigh the number of deaths among people diagnosed with HIV, largely due to the success and widespread utilization of highly active antiretroviral therapy in 1995. About 1.2 million people are living with HIV in the U.S. In 2019, 15.2 percent of new HIV diagnoses were in the south. There were 635 newly diagnosed HIV infections reported among AL residents in 2019. CDC estimated that 13 percent of persons infected with HIV in the U.S. were unaware of their status.[2] Applying this knowledge to the 2019 state prevalence, estimates suggest an additional 2,517 AL residents may be infected with HIV and are unaware of their status.

It is important for anyone engaging in sexual activity to get tested frequently to protect their own and their partners' health. Vaccinations for hepatitis B and human papillomavirus (HPV) are good primary preventions.

#### Vulnerable Populations

Pregnant women can become infected with STIs and should get a screening during their routine medical care. A positive screening can pose a serious risk to their pregnancy, and the baby may become infected while pregnant. Syphilis during pregnancy is increasing across the U.S., and can cause miscarriage, prematurity, low birth weight, and severe anemia. CDC recommends all expecting mothers to be tested for all STIs by the first prenatal visit. If positive, health practitioners can recommend a safe form of treatment for their patients.

Individuals who have multiple partners and people who identify as LGBTQ+ have an increased risk of having an STI, so CDC recommends getting screened once a year.[2]

#### Geographic Variation

STIs can occur anywhere there is bodily fluid exchange. Stigma and poor sexual education are the primary reasons for high transmission post infection. Areas with high STI rates are near urban centers and within populations experiencing limited access to clinical treatments.

#### Topics Addressed for This Indicator are:

- Syphilis incidence.
- Gonorrhea incidence.
- Chlamydia incidence.
- HIV incidence.

#### Highlights

Data are retrieved from the ADPH Office of Sexually Transmitted Diseases (STDs) and the Office of HIV Prevention and Care:

- STI rates have been increasing every year, especially in person ages 15-24 years old.
- AA/black individuals were nearly three times more likely to be diagnosed with HIV than white individuals.

#### Risk Factors:

- Multiple sexual partners.
- Previous STIs.
- Commercial sex work.
- Intravenous drug use.
- Unprotected sex.
- Dating violence and sexual assault.

## Syphilis Incidence

Syphilis is caused by bacterium *Treponema pallidum* and is one of the most reported STIs in both AL and the U.S.:

- The Syphilis rate for males is three times higher than females in AL.
- The rates were highest in 1524 years old in 2019, increasing by 21.8 new cases per 100,000 persons since 2018.
- AA/black persons with syphilis have case rates nearly six times higher than white persons with syphilis in 2019 (75.2 new cases compared to 12.7 new cases per 100,000 persons).
- Hispanic persons with syphilis doubled by case and rate from 2018 to 2019.

| Table 6.1 – Syphilis Cases, 2018–2019 | | | | |
|---|---|---|---|---|
| | 2018 Count, Rate per 100,000 | | 2019 Count, Rate per 100,000 | |
| **AL** | **1,243** | **25.4** | **1,483** | **30.2** |
| **U.S.** | **115,062** | **35.2** | **129,813** | **39.7** |
| **Public Health Districts** | | | | |
| Northern | 214 | 19.6 | 288 | 26.4 |
| Northeastern | 83 | 10.3 | 108 | 13.3 |
| West Central | 87 | 20.1 | 143 | 33.0 |
| Jefferson | 293 | 44.5 | 257 | 39.0 |
| East Central | 270 | 38.1 | 343 | 48.4 |
| Southeastern | 106 | 28.0 | 98 | 25.9 |
| Southwestern | 45 | 10.9 | 46 | 11.2 |
| Mobile | 145 | 35.1 | 200 | 48.4 |
| **Geographic Variation** | | | | |
| N/A | - | - | - | - |
| **Sex** | | | | |
| Female | 290 | 11.4 | 392 | 15.5 |
| Male | 953 | 40.2 | 1,091 | 46.0 |
| **Race** | | | | |
| AA/black | 830 | 64.0 | 976 | 75.2 |
| Hispanic or Latino | 26 | 11.6 | 53 | 23.7 |
| White | 339 | 10.6 | 405 | 12.7 |
| **Household Income** | | | | |
| N/A | - | - | - | - |
| **Age (in years)** | | | | |
| 15-24 | 369 | 58.0 | 507 | 79.8 |
| 25-34 | 476 | 73.5 | 483 | 74.6 |
| 35-44 | 196 | 33.0 | 269 | 45.3 |
| 45-54 | 123 | 19.9 | 112 | 18.2 |
| 55-64 | 61 | 9.3 | 75 | 11.4 |
| 65+ | 17 | 2.0 | 9 | 1.1 |
| **Education** | | | | |
| N/A | - | - | - | - |

| Table 6.2 – Gonorrhea Cases, 2018–2019 | | | | |
|---|---|---|---|---|
| | 2018 Count, Rate per 100,000 | | 2019 Count, Rate per 100,000 | |
| **AL** | **12,954** | **264.2** | **13,844** | **282.3** |
| **U.S.** | **583,405** | **179.1** | **616,392** | **188.4** |
| **Public Health Districts** | | | | |
| Northern | 2,329 | 217.7 | 2,270 | 259.0 |
| Northeastern | 1,343 | 166.7 | 1,548 | 191.2 |
| West Central | 1,081 | 248.9 | 1,082 | 249.4 |
| Jefferson | 2,819 | 427.6 | 2,428 | 368.7 |
| East Central | 2,459 | 347.9 | 2,461 | 347.5 |
| Southeastern | 1,097 | 290.0 | 1,252 | 330.4 |
| Southwestern | 651 | 160.1 | 792 | 192.4 |
| Mobile | 1,165 | 281.4 | 1,511 | 365.7 |
| **Geographic Variation** | | | | |
| N/A | - | - | - | - |
| **Sex** | | | | |
| Female | 6,262 | 247.2 | 6,613 | 261.0 |
| Male | 6,655 | 280.9 | 7,213 | 304.4 |
| **Race** | | | | |
| AA/black | 6,222 | 479.4 | 6,386 | 492.1 |
| Hispanic or Latino | 133 | 59.6 | 117 | 52.4 |
| White | 1,820 | 56.9 | 2,007 | 62.7 |
| **Household Income** | | | | |
| N/A | - | - | - | - |
| **Age (in years)** | | | | |
| 15-24 | 7,082 | 1,114.0 | 7,271 | 1,143.8 |
| 25-34 | 3,909 | 604.0 | 4,375 | 676.0 |
| 35-44 | 1,242 | 209.3 | 1,415 | 238.5 |
| 45-54 | 408 | 66.2 | 472 | 76.5 |
| 55-64 | 150 | 22.8 | 185 | 28.1 |
| 65+ | 39 | 4.6 | 38 | 4.5 |
| **Education** | | | | |
| N/A | - | - | - | - |

## Gonorrhea Incidence

Gonorrhea, caused by the bacterium *Neisseria gonorrhoeae*, is the second most reported STI in both AL and the U.S.:

- The Northeastern Public Health District had the lowest case rate, while Jefferson County had the highest rate in 2019.
- Gonorrhea rates are higher in males compared to females (304.4 new cases compared to 261.0 new cases per 100,000 persons).
- The highest rates of infection are between ages 15-24 years old in 2019 (1,143.8 cases per 100,000 persons).

## Chlamydia Incidence

Chlamydia, caused by the bacterium *chlamydia trachomatis*, is the most reported STI in both AL and the U.S.:

- AL ranks eighth nationally in chlamydia transmission, which is an improvement from its previous rank of third in 2014. Within the state, chlamydia cases are still on the rise.
- AA/blacks have the higher rates of disease compared to white (908.6 new cases compared to 124.7 new cases per 100,000 persons).
- Females have higher rates of disease compared to males.

- Young adults aged 15-24 years old have the highest rates of disease compared to other age groups (3,255.6 new cases per 100,000 persons).

| Table 6.3 – Chlamydia Cases, 2018–2019 | | | | |
|---|---|---|---|---|
| | 2018 Count, Rate per 100,000 | | 2019 Count, Rate per 100,000 | |
| **AL** | **29,396** | **599.5** | **30,042** | **612.7** |
| **U.S.** | **1.758M** | **537.5** | **1.809M** | **552.8** |
| **Public Health Districts** | | | | |
| Northern | 4,911 | 459.1 | 5,479 | 512.2 |
| Northeastern | 3,163 | 392.5 | 3,674 | 453.9 |
| West Central | 3,070 | 706.8 | 2,713 | 625.3 |
| Jefferson | 5,298 | 803.7 | 4,659 | 707.4 |
| East Central | 5,602 | 792.6 | 5,437 | 767.7 |
| Southeastern | 2,434 | 643.3 | 2,567 | 677.4 |
| Southwestern | 1,867 | 459.0 | 2,153 | 523.0 |
| Mobile | 3,029 | 731.7 | 3,359 | 812.9 |
| **Geographic Variation** | | | | |
| N/A | - | - | - | - |
| **Sex** | | | | |
| Female | 20,285 | 800.6 | 20,562 | 811.6 |
| Male | 9,013 | 380.4 | 9,418 | 397.5 |
| **Race** | | | | |
| AA/black | 12,157 | 936.8 | 11,791 | 908.6 |
| Hispanic or Latino | 556 | 249.0 | 651 | 291.6 |
| White | 3,997 | 124.9 | 3,992 | 124.7 |
| **Household Income** | | | | |
| N/A | - | - | - | - |
| **Age (in years)** | | | | |
| 15-24 | 20,677 | 3,252.6 | 20,696 | 3,255.6 |
| 25-34 | 6,668 | 1,030.2 | 7,064 | 1,091.4 |
| 35-44 | 1,244 | 209.7 | 1,456 | 245.4 |
| 45-54 | 347 | 56.3 | 407 | 66.0 |
| 55-64 | 103 | 15.7 | 107 | 16.3 |
| 65+ | 30 | 3.5 | 24 | 2.8 |
| **Education** | | | | |
| N/A | - | - | - | - |

## Human Immunodeficiency Virus Incidence

While male-to-male sexual activity continues to be the predominant mode of exposure for HIV infection, heterosexual contact is the second most common mode of exposure.

There are persons living with HIV in every county in AL, and the number continues to increase each year. In 2019, Jefferson County accounted for 20 percent of all new cases (128 cases).

AL is experiencing a downward shift in the age distribution of newly diagnosed HIV infections as young adults (ages 25-34 years old) emerged as the most affected age group:

- At the end of 2019, 14,345 AL residents were known to be living with HIV and 6,432 residents (44.8 percent) had progressed to acquired immunodeficiency syndrome (AIDS).
- Rural AL HIV incidence rate is 5.2 cases per 100,000 persons. Urban AL HIV incidence rate is 16.9 cases per 100,000 persons. Some cases could not be confirmed to an individual's county, but the case was confirmed within the district.
- AA/blacks continue to be disproportionately affected by HIV in AL. Nearly 72 percent of newly diagnosed HIV infections occurred in AA/blacks in 2019.
- AA/black individuals were nearly 3 times more likely to be diagnosed with HIV than white individuals (456 compared to 152 individuals, respectively).

| Table 6.4 – HIV Incidence, 2019 | | |
|---|---|---|
| | Count | Rate (per 100,000) |
| **AL** | **635** | **13.1** |
| **U.S.** | **36,801** | **12.6** |
| **Public Health Districts** | | |
| Northern | 80 | 7.5 |
| Northeastern | 39 | 4.8 |
| West Central | 55 | 12.7 |
| Jefferson | 128 | 19.4 |
| East Central | 159 | 22.5 |
| Southeastern | 45 | 11.9 |
| Southwestern | 23 | 5.7 |
| Mobile | 106 | 25.6 |
| **Geographic Variation** | | |
| Rural | 110 | 5.2 |
| Urban | 472 | 16.9 |
| **Sex** | | |
| Female | 136 | 5.4 |
| Male | 499 | 21.1 |
| **Race** | | |
| AA/black | 456 | 35.1 |
| White | 152 | 4.7 |
| Multi-racial | 12 | 13.8 |
| **Household Income** | | |
| N/A | - | - |
| **Age (in years)** | | |
| 15-24 | 166 | 26.1 |
| 25-34 | 220 | 34.0 |
| 35-44 | 119 | 20.1 |

| | | |
|---|---|---|
| 45-54 | 75 | 12.2 |
| 55-64 | 46 | 7.0 |
| 65+ | 12 | 1.4 |
| **Education** | | |
| N/A | - | - |

## A Closer Look into Sexually Transmitted Infections

HIV affects over one million people in the U.S. per year. In AL, there were 13,723 current diagnosed cases of HIV and 635 newly diagnosed HIV infections in 2019. About 65 percent of individuals living with HIV were virally suppressed.[2] Early detection and follow-up of an HIV-positive result can reduce patient mortality and prevent future transmissions. The Office of HIV Prevention and Care partnered with a variety of community partners, including AIDS service organizations, community-based organizations, and faith-based organizations, to create the End HIV AL (EHA) committee.[3]

### End HIV Assessment

The purpose of the EHA committee is to identify community members and develop a plan to reduce new HIV infections in AL. Provider interviews, focus groups, surveys, and community meetings helped shape the EHA team's work. Listening sessions with community members were critical to the process. The sessions prompted the workgroup to:

- Convene focus groups in rural areas throughout the state.
- Set up recruitment booths at health fairs and conferences.
- Gain access to college campuses and other public institutions.
- Establish an EHA planning group.

Through the EHA committee's direction, the team expanded its reach to rural areas by providing a telephone interview survey and an online focus group. The finalized community needs survey tailored sensitive questions towards SDOHs and allowed for a deeper understanding of the impact of health issues for persons living with HIV. The prioritized population for this community health assessment included persons who identify as transgender; cisgender women, especially AA/black women; people who inject drugs; and gay and bisexual men (GBM) and other men who have sex with men, especially AA/black and Hispanic/Latinx GBM. Other vulnerable populations included clients with unstable housing or homelessness. The committee also wanted to include underrepresented populations such as Hispanic/Latinx individuals; therefore, a translator was hired to attend program meetings and interpret documents, surveys, and emails.

Quantitative data responses were collected through an online survey between March and July 2020 to address the disparities in HIV incidence. Over 400 individuals participated in the process. Four overarching themes were identified as barriers to HIV care: stigma, education, lack of resources, and cultural considerations. These were further explained to include fear of discrimination, lack of insurance, lack of transportation to services, and inadequate income. The prioritized population identified six needs for HIV care listed below. This section provides further discussion on testing sites and partner services with supporting quantitative statistics and qualitative stakeholder feedback.

The identified needs in the priority population are:

- HIV testing.
- STI testing.
- Hepatitis C testing.
- Partner services.
- Health education.
- Prevention services.

### HIV and STI Testing Sites

Education about safe sexual health practices (including regular condom use, regular STI testing, and open communication with partners) is one preventative measure to spreading STIs. Provider interviews highlighted reoccurring themes about improving access to accurate, culturally appropriate, and timely sexual health information. Additionally, regular testing can also prevent unknowingly spreading disease. Since STIs can increase the risk of spreading HIV, surveillance data can inform the public about high-risk sexual behavior.[2] In the 2019 ADPH STI report:

- There were 319 chlamydia cases co-infected with HIV.[4]
- There were 331 gonorrhea cases co-infected with HIV.[4]
- There were136 primary and secondary syphilis cases were co-infected with HIV.[4]
- Chlamydia was the most common STI in 2019. The most vulnerable populations were AA/black persons and individuals aged 15-24 years old.[4]

HIV and STI testing sites can be located at health departments and some medical offices. While most individuals living with HIV live in more urban counties,

rural counties often are medical care deserts without adequate access to standard medical care or specialized HIV care.[3] In 2010, ADPH increased the number of location sites for disproportionate populations affected by HIV, such as people who use injection drugs, AA/black GBM, and Hispanic/Latinx GBM. Survey participants reported that the community is still unsure where HIV and STI testing sites are located, noting that rural areas are underserved by testing sites.

### Partner Services

Of the 637 individuals living with HIV linked to care in 2019,77 percent were linked within 30 days of care. The Northeastern Public Health District had the highest percent link to care (87 percent).[3] Community members reported that most individuals received an appointment or were directed to locations that suited their needs:

- An appointment with a health department or clinic was given to 45 individuals.
- Information on where to receive HIV care was given to 45 individuals.
- Clinical staff or peers went with 11 individuals to their appointment.

Cost of services was a significant barrier to care among survey respondents (59.8 percent), noting that almost 40 percent of individuals living with HIV had no insurance at the time of diagnosis. The insurance status of Spanish-speaking clients improved over the interval between diagnosis and survey completion (72.0 percent to 91.7 percent). Additionally, Spanish-speaking clients found that access was less accommodating than English-speaking clients, specifically for insurance assistance (64.4 percent and 36.8 percent) and emergency financial assistance (64.3 percent and 0.0 percent).[3]

## Data Sources

**Table 6.1 – Syphilis Cases, 2018-2019.** ADPH, Division of Sexually Transmitted Diseases (STD) Prevention and Control, 2019. Data requested July 2021.

**Table 6.2 – Gonorrhea Cases, 2018-2019.** ADPH, Division of STD Prevention and Control, 2019. Data requested July 2021.

**Table 6.3 – Chlamydia Cases, 2018-2019.** ADPH, Division of STD Prevention and Control, 2019. Data requested July 2021.

**Table 6.4 – HIV Incidence, 2019.** ADPH, Division of STD Prevention and Control, 2019. Data requested July 2021.

## Written Sources


1. ADPH, Division of STD Prevention and Control, 2019.
2. CDC, STIs and HIV Fact Sheet, 2020.
3. ADPH Office of HIV Prevention and Care, Ending the HIV Epidemic, 2020.
4. ADPH Division of STD Prevention and Control, STD Annual Report 2019, 2020.


## Community Resources

**1917 Clinic**
Location: Jefferson County, AL
Type: Non-profit Organization

**Act Against AIDS**
Location: Nationwide
Type: CDC Program

**AL Health Education Center**
Location: Statewide
Type: Education Center

**AIDS AL**
Location: Washington, DC
Type: Non-profit Organization

**Birmingham AIDS Organization**
Location: Jefferson County, AL
Type: Non-profit Organization

**CDC**
Location: Atlanta, GA
Type: Federal Government Organization

**Choices Pregnancy Clinic**
Location: Tuscaloosa County, AL
Type: Health Clinic Facility

**Housing Opportunities for Persons with AIDS**
Location: Statewide
Type: Federally Funded Program

**Magic City Acceptance Center**
Location: Jefferson County, AL
Type: Non-profit Organization

**National HIV, STD, and Viral Hepatitis Testing Resources**
Location: Nationwide
Type: CDC Program

**Planned Parenthood**
Location: Mobile County, AL
Type: Non-profit Organization

**Thrive AL**
Location: Madison County, AL
Type: Health Clinic Facility

## 7. Geriatrics

### Ranked AL's Seventh Health Indicator

Geriatrics is a specialty that focuses on the health of individuals over 65 years old. With the elderly population rising nationally, health concerns regarding geriatrics increased from the tenth to the seventh leading health indicator in AL. The Baby Boom generation has the largest population influx in the history of the U.S. As subsequent generations enter retirement age, it is projected that almost 25 percent of the U.S. population will be 65 years or older by 2060.[1] Elderly people often need more health resources and spend more of their income on healthcare.[2]

The aging population can experience numerous health issues due to multiple chronic diseases. A multigenerational health plan helps older adults remain at home, maintain control of their health, and continue their routines without much interruption. Elderly populations with regular connections to their family consistently report much less depression, better physical health, and higher life satisfaction.[3]

#### Vulnerable Populations

Elderly citizens who need extra support may need additional care by an in-home nurse or relocated to a nursing home. There may be additional factors preventing a person from getting access to care, such as the inability to drive, forgetting their scheduled provider appointment(s), and having mobility problems.[2,3]

#### Geographic Variation

Nursing homes, assisted living facilities, and other long-term care facilities are the primary location for elderly individuals who cannot independently take care of themselves. However, rurality still plays a role in the number of long-term care facilities open and the doctors' availability for routine specialized care for chronic disease management.

#### Topics Addressed for This Indicator are:

- Adult abuse cases.
- Alzheimer's disease among Medicare recipients.

#### Highlights

Data are retrieved from the AL Department of Human Resources (DHR) and the Centers for Medicare and Medicaid.

- Alzheimer's disease is the sixth leading cause of death in AL with 54.2 deaths per 100,000 people in 2019.
- In AL, rural areas have a higher rate of adult abuse cases (19.2 cases per 10,000 persons), than urban areas for 2019 (17.3 cases per 10,000 persons).

#### Risk Factors:

- Age.
- Family history.
- High blood pressure.
- Stroke history.
- Low physical activity.
- Geography/rural residents.
- Social isolation.
- Unable to provide self-care.

## Adult Abuse Cases

The risk for elder abuse occurs more if a patient cannot take care of themselves, have a cognitive disorder (such as dementia and Alzheimer's disease), or is socially isolated:

- In 2019, 8,789 adult abuse, neglect, and exploitation cases were opened and investigated by the DHR. The most impacted group was white females.
- The top five counties with the highest case numbers were Jefferson, Mobile, Houston, Montgomery, and Madison.
- The Southeastern Public Health District had the highest rate of adult abuse per 10,000 persons in 2019.
- In AL, rural areas have a higher rate of adult abuse cases (19.2 cases per 10,000 persons), than urban areas for 2019 (17.3 cases per 10,000 persons).

The demographic data (sex, race/ ethnicity) pertains to the number of clients. The geographic data (public health districts and geographic variation) refers to the number of cases.

**Table 7.1 – Adult Abuse Cases, 2018-2019**

| | 2018 Count, Rate per 10,000 | | 2019 Count, Rate per 10,000 | |
|---|---|---|---|---|
| **AL** | **8,862** | **24.1** | **8,789** | **23.0** |
| **U.S.** | **-** | **-** | **-** | **-** |
| **Public Health Districts** | | | | |
| Northern | 1,971 | 19.0 | 1,799 | 17.4 |
| Northeastern | 1,712 | 21.6 | 1,566 | 19.8 |
| West Central | 562 | 13.2 | 585 | 13.8 |
| Jefferson | 967 | 14.7 | 917 | 13.9 |
| East Central | 1,293 | 18.8 | 1,220 | 17.7 |

| | | | | |
|---|---|---|---|---|
| Southeastern | 1,188 | 31.7 | 1,401 | 37.4 |
| Southwestern | 522 | 13.2 | 470 | 11.9 |
| Mobile | 647 | 15.7 | 691 | 16.8 |
| **Geographic Variation** | | | | |
| Rural | 4,203 | 20.0 | 4,035 | 19.2 |
| Urban | 4,729 | 16.9 | 4,827 | 17.3 |
| **Sex** | | | | |
| Female | 5,460 | - | 5,216 | - |
| Male | 3,697 | - | 3,749 | - |
| **Race/Ethnicity** | | | | |
| White | 6,180 | - | 5,999 | - |
| AA/black | 2,473 | - | 2,504 | - |
| Hispanic or Latino | 47 | - | 41 | - |
| Asian | 0 | - | 11 | - |
| Native Hawaiian | 26 | - | 24 | - |
| Other/unknown | 480 | - | 433 | - |
| **Household Income** | | | | |
| N/A | - | - | - | - |
| **Age (in years)** | | | | |
| N/A | - | - | - | - |
| **Education** | | | | |
| N/A | - | - | - | - |

## Alzheimer's Disease Among Medicare Recipients

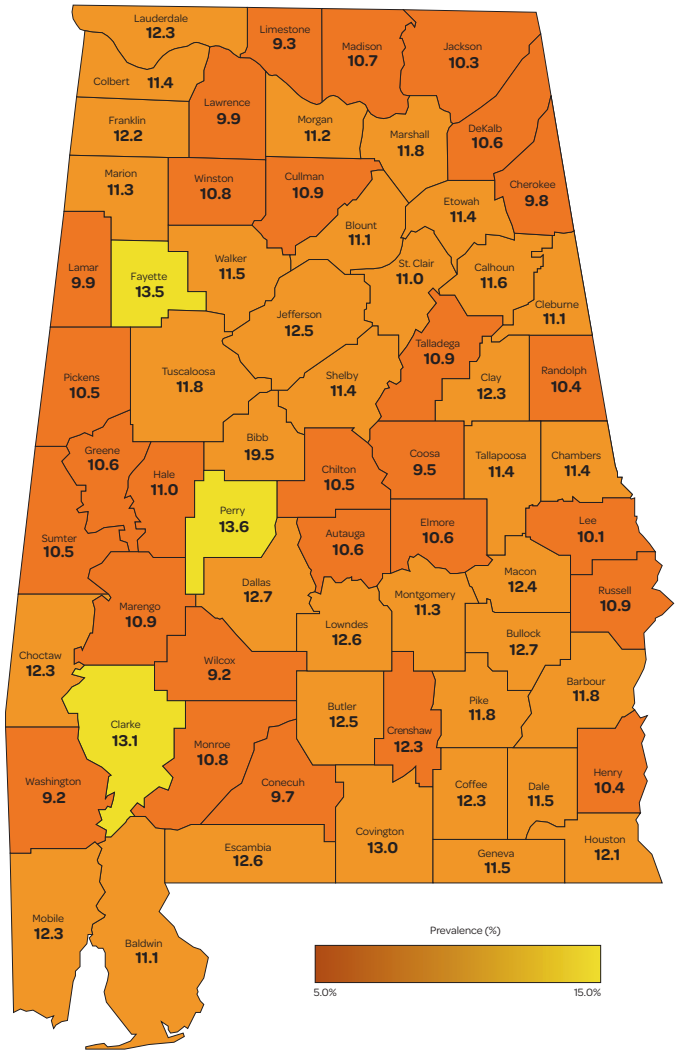
Alzheimer's disease affects adults over the age of 50 years old, and 2,659 individuals in AL died with this co-morbidity listed on their death certificate in 2019. Alzheimer's disease is the sixth leading cause of death in AL, and it is the most common cause of dementia.[5] The disease often causes loss of functioning and interferes with daily activities:

- In 2018, Perry County had the highest prevalence of Medicare recipients diagnosed with Alzheimer's disease in AL (13.6 percent).
- The historical trend of Alzheimer's disease-related deaths between 20102018 rose proportionately in elderly populations. In 2019, the AL rate of Alzheimer's disease-related deaths was 54.2 per 100,000 persons, compared to the U.S. rate of 37.0 deaths per 100,000 persons.[3]

Long-term care services, including home and community-based services, assisted living, and nursing home care, may be cost-prohibitive since disease progression is very long. Alzheimer's disease is closely linked to access to care, because adequate care is closely related to payor source.[6] Most individuals over 65 years old are on Medicare or private insurance.

Additional demographic information is not available at this time.

**Figure 7.1** – The distribution of Alzheimer's disease prevalence by county in 2018. Source: Centers for Medicare and Medicaid Services.




## Data Sources

**Table 7.1 – Adult Abuse Cases, 2018-2019.** DHR, Division of Adult Protective Services, 2018. Data requested July 2020.

**Figure 7.1 – Alzheimer's Disease Among Medicare Recipients, 2018**. Centers for Medicare and Medicaid Services, Alzheimer's Disease, 2019. Data requested January 2021.

## Written Sources


1. U.S. Census Bureau, Projected Age Statistics, 2020.
2. CDC, Promoting Health for Older Adults, 2020.

2. ADPH, Center for Health Statistics Alzheimer's Mortality, 2019.
3. CDC, Geriatrics, 2020.
4. CDC National Center for Health Statistics, Age Adjusted Leading Causes of Death, 2019.
5. Alzheimer's Association, New Alzheimer's Association Report Reveals Sharp Increases in Alzheimer's Prevalence, Death, Cost of Care, 2018.

## Community Resources

**ADPH Home Health**
Location: Montgomery County, AL
Type: State Government Organization

**AL Department of Senior Services**
Location: Montgomery County, AL
Type: State Government Organization

**AL Disabilities Advocacy Program**
Location: Statewide
Type: Advocacy Organization

**AL Nursing Home Association**
Location: Montgomery County, AL
Type: Non-profit Organization

**American Association of People with Disabilities**
Location: Nationwide
Type: Advocacy Organization

**ARC of AL**
Location: Statewide
Type: Non-profit Organization

**Extendicare Health and Rehab**
Location: Etowah County, AL
Type: Health Facility

**National Institute on Aging**
Location: Washington, DC Metro
Type: Federal Government Organization

**National Institutes of Health (NIH) Senior Health**
Location: Washington, DC Metro
Type: Federal Government Organization

**Redstone Military Retirement Residence Association**
Location: Madison County, AL
Type: Non-profit Organization

**Ruth and Naomi Senior Outreach**
Location: Jefferson County, AL
Type: Non-profit Organization

**Social Security Administrative Office**
Location: Montgomery County, AL
Type: State Government Association

**U.S. Department of Labor's Office of Disability Employment Policy**
Location: Washington, DC Metro
Type: Federal Government Organization

## 8. Cardiovascular Diseases

### Ranked AL's Eighth Health Indicator

CVDs are identified as the eighth most prominent health indicator in AL. It refers to a group of serious health conditions which can result in death and disability.[1] CVD was the leading cause of death in AL for 2019.[2]

CVDs are caused by plaque buildup in an individual's arteries. This causes the arteries to narrow over time, partially or totally blocking the blood flow. The four most common CVDs are coronary artery disease, heart failure, heart attacks, and stroke.[1] While the other three conditions affect the heart, a stroke affects the brain and occurs when there is a lack of blood flow to an area of the brain. Stroke was the fourth leading cause of death in AL in 2019.[2]

Another common CVD condition that affects many American adults is hypertension (also called high blood pressure). According to CDC, an individual can be considered to have pre-hypertension based on the following: family history, weight, level of physical activity, diet, smoking, and having other co-existing diseases, such as diabetes.[1] Many people in AL have hypertension or high cholesterol but are not aware of their condition. Unfortunately for many individuals, chest pain is the first reason for visiting the doctor.

#### Vulnerable Populations

CVDs are considered an aging disease, which means your risk of receiving the diagnosis increases with age. White males have the highest risk of developing CVDs, followed by AA/black males, AA/black females, and Asian males.[1] Individuals that live in food deserts (i.e., places with limited access to healthy and affordable food choices) and low-income neighborhoods with little green space have higher rates of CVD morbidity.[3]

#### Geographic Variation

AL is within the CDC designated "Stroke Belt" that includes most of the southeast U.S. (i.e., Arkansas, Georgia, Indiana, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia.) These states had an age-adjusted stroke mortality rate that exceeded the national rate by 34 percent in 2018.[1]

#### Topics Addressed for This Indicator are:

- Adults told they have high blood pressure.
- Hypertension diagnosis in Medicaid recipients.
- Hypertension among Medicare recipients.
- Hyperlipidemia among Medicare recipients.
- Stroke among Medicare recipients.
- BCBS members who had cardiovascular-related claims.
- Heart disease and stroke mortality.

#### Highlights

Indicator data are collected from Blue Cross Blue Shield of AL (BCBS) Claims, Centers for Medicare and Medicaid Services, AL Medicaid Agency, BRFSS, and the ADPH Center for Health Statistics Mortality Files.

- AL's stroke mortality rate was 64.0 deaths per 100,000 persons in 2019.
- Shelby County, located in the Northeastern Public Health District, had the highest stroke rate with 142.1 deaths per 100,000 persons.
- According to BRFSS data, hypertension diagnosis is higher in populations with low income and low education attainment.

#### Risk Factors:

- Family history of CVD.
- Overweight/obesity.
- High sodium and high-fat diet.
- Reduced outdoor recreational access.
- Lack of education.
- Poor access to healthy foods.
- Minority racial groups (particularly AA/blacks and Asian males).
- Smoking and second-hand smoke.
- Co-morbid diabetes diagnosis.

## Adults Told They Have High Blood Pressure

The statewide prevalence for adults who have been told they have high blood pressure was 10.2 percent higher than the national median:

- The risk of being diagnosed with hypertension increases with age. Twothirds of individuals over 65 years old have been told they have high blood pressure.
- According to BRFSS data, males have a similar prevalence of high blood pressure compared to females. AA/black individuals have a 5.4 percent higher prevalence of high blood pressure compared to white individuals.

- Individuals with a household income of less than $15,000 and have less than a high school education have the highest prevalence of hypertension.

| Table 8.1 – Percentage of Adults Told They Have High Blood Pressure, 2019 | | |
|---|---|---|
| | % | 95% CI |
| **AL** | **42.5** | **(41.0-44.0)** |
| **U.S. Median** | **32.3** | **-** |
| **Public Health Districts** | | |
| Northern | 42.0 | (38.2-45.8) |
| Northeastern | 43.0 | (39.3-46.6) |
| West Central | 43.4 | (39.3-47.6) |
| Jefferson | 40.0 | (36.2-43.8) |
| East Central | 42.4 | (38.1-46.7) |
| Southeastern | 47.8 | (43.3-52.4) |
| Southwestern | 43.2 | (39.2-47.3) |
| Mobile | 40.0 | (36.1-43.9) |
| **Geographic Variation** | | |
| N/A | - | - |
| **Sex** | | |
| Male | 44.3 | (42.0-46.6) |
| Female | 40.8 | (38.9-42.7) |
| **Race** | | |
| White | 42.4 | (40.6-44.1) |
| AA/black | 47.8 | (44.7-50.9) |
| **Household Income** | | |
| Less than 15,000 | 54.4 | (49.2-59.6) |
| $15,000-24,999 | 49.3 | (45.2-53.5) |
| $25,000-34,999 | 43.7 | (38.2-49.1) |
| $35,000-49,999 | 38.2 | (34.0-42.5) |
| $50,000+ | 35.9 | (33.6-38.2) |
| **Age (in years)** | | |
| 25-34 | 19.4 | (15.8-23.0) |
| 35-44 | 32.7 | (28.9-36.5) |
| 45-54 | 46.9 | (43.3-50.4) |
| 55-64 | 60.1 | (57.1-63.2) |
| 65+ | 68.8 | (66.6-71.0) |
| **Education** | | |
| Less than high school | 53.2 | (48.0-58.4) |
| High school or GED | 43.6 | (40.9-46.3) |
| Some college | 39.2 | (36.6-41.8) |
| College graduate or higher | 38.3 | (35.9-40.8) |

## Hypertension Diagnosis in Medicaid Recipients

Medicaid covers children and adults under the age of 65 years old. In AL, 7.4 percent of Medicaid recipients were diagnosed with hypertension in 2018:

- The county with the highest hypertension prevalence is Sumter County (16.9 percent). Sumter County is located in the West Central Public Health District.
- The West Central Public Health District had the highest prevalence of Medicaid recipients diagnosed in 2018 (9.1 percent).
- In the Medicaid population, the number of white and AA/black diagnosed with hypertension is similar in AL in 2018.
- Rural areas have a higher percentage of Medicaid recipients diagnosed with hypertension compared to urban areas (8.3 percent compared to 6.0 percent, respectively).

For the district level, only confirmed county diagnoses were included in the calculation.

| Table 8.2 – Percentage of Medicaid Recipients Diagnosed with Hypertension in AL, 2018 | | |
|---|---|---|
| | Count | % |
| **AL** | **89,108** | **7.4** |
| **U.S.** | **-** | **-** |
| **Public Health Districts** | | |
| Northern | 17,092 | 7.2 |
| Northeastern | 13,577 | 7.0 |
| West Central | 10,972 | 9.1 |
| Jefferson | 8,666 | 5.4 |
| East Central | 11,950 | 6.3 |
| Southeastern | 10,512 | 9.0 |
| Southwestern | 9,712 | 8.6 |
| Mobile | 6,403 | 5.4 |
| **Geographic Variation** | | |
| Rural | 49,096 | 8.3 |
| Urban | 40,012 | 6.0 |
| **Sex** | | |
| Male | 59,346 | - |
| Female | 29,762 | - |
| **Race** | | |
| White | 38,686 | - |
| AA/black | 40,618 | - |
| Hispanic | 595 | - |
| Other/not provided | 9,210 | - |
| **Household Income** | | |
| N/A | - | - |
| **Age (in years)** | | |
| Under 21 | 2,143 | - |
| 21 and Over | 86,965 | - |
| **Education** | | |
| N/A | - | - |

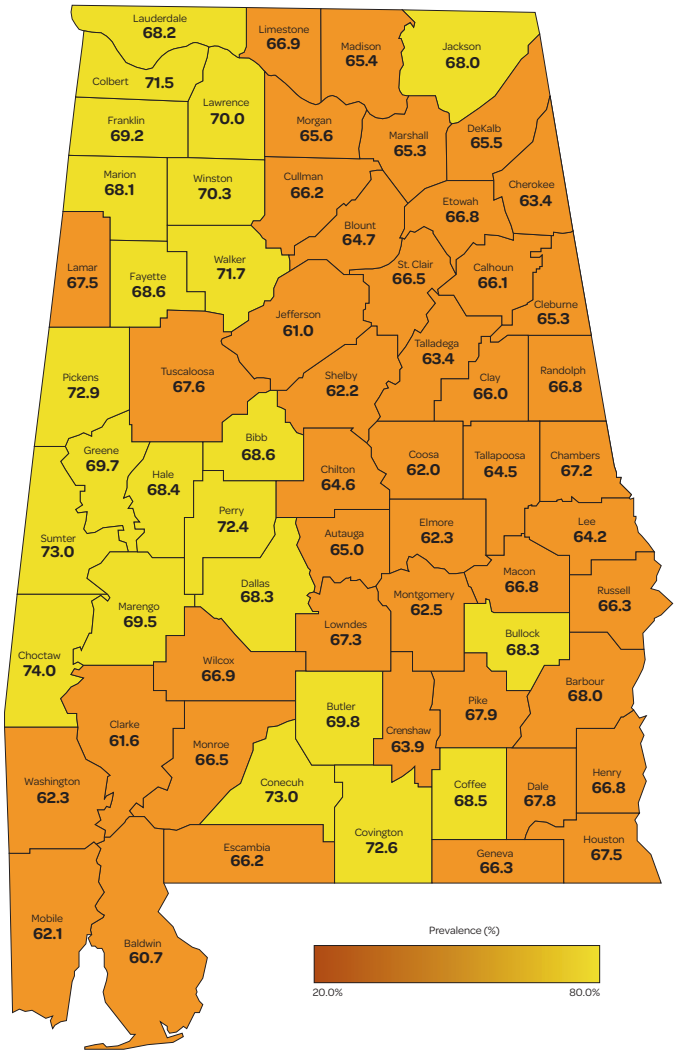
## Hypertension Among Medicare Recipients

Hypertension (high blood pressure) can increase your risk of myocardial infarction, stroke, and other CVDs.[1] Hypertension increases dramatically with age:

- The prevalence of Alabamians on Medicare with hypertension was 65.5 percent in 2018. In the 2015 CHA, the state prevalence was 61.0 percent.
- Rural areas had 66.5 percent of Medicare recipients with hypertension, while urban areas had 63.9 percent of Medicare recipients with hypertension.
- Choctaw County had the highest percentage of individuals on Medicare with a hypertension diagnosis in 2018, 74.0 percent.

Additional demographic information is not available at this time.

**Figure 8.1** – This map represents the percentage of Medicare recipients with hypertension throughout the state. Source: Centers for Medicare and Medicaid Services.



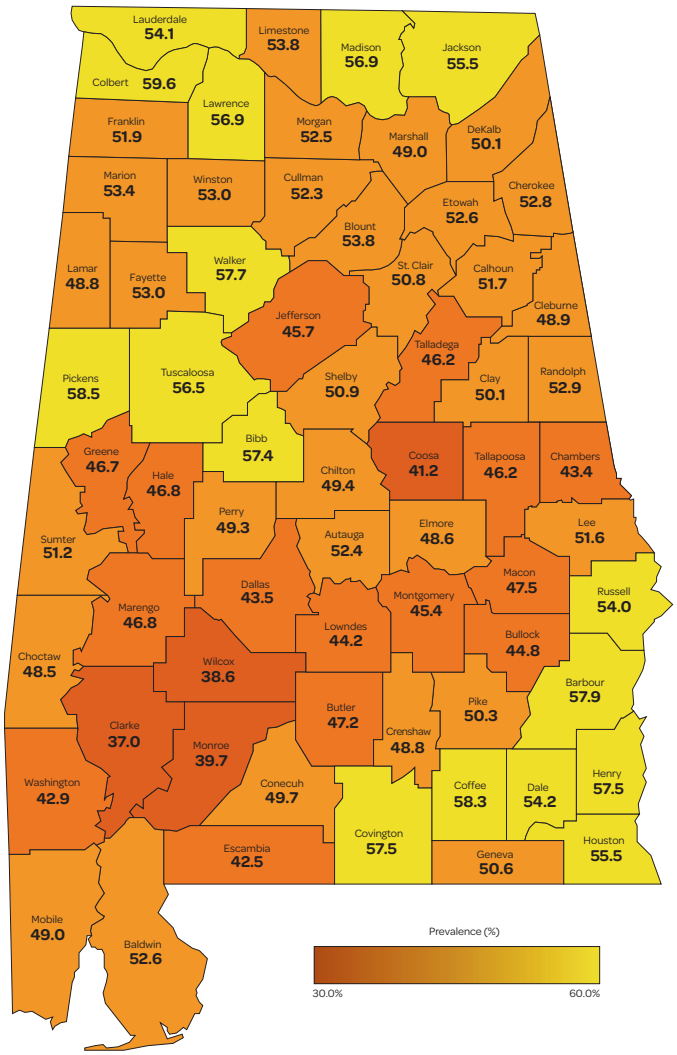

## Hyperlipidemia Among Medicare Recipients

Hyperlipidemia is an abnormally high concentration of fats or lipid in the blood. The increase of fat deposits in the veins can lead to arteriosclerosis, which is the hardening of the blood vessels.[1]

In 2018, 51.3 percent of AL Medicare recipients had hyperlipidemia, compared to the U.S. prevalence of 47.7 percent. In the 2015 CHA, 45.1 percent of Medicare recipients had hyperlipidemia in AL:

- The Northern Public Health District had the highest prevalence of hyperlipidemia.
- In 2018, Colbert County had the highest prevalence, with 59.6 percent of the Medicare recipients having hyperlipidemia, followed by Pickens County at 58.5 percent, and Coffee County at 58.3 percent.
- In 2018, Clarke County had the lowest prevalence, with 37.0 percent.

**Figure 8.2** – This map represents the percentage of Medicare recipients with hyperlipidemia throughout the state. Source: Centers for Medicare and Medicaid Services.



Additional demographic information is not available at this time.

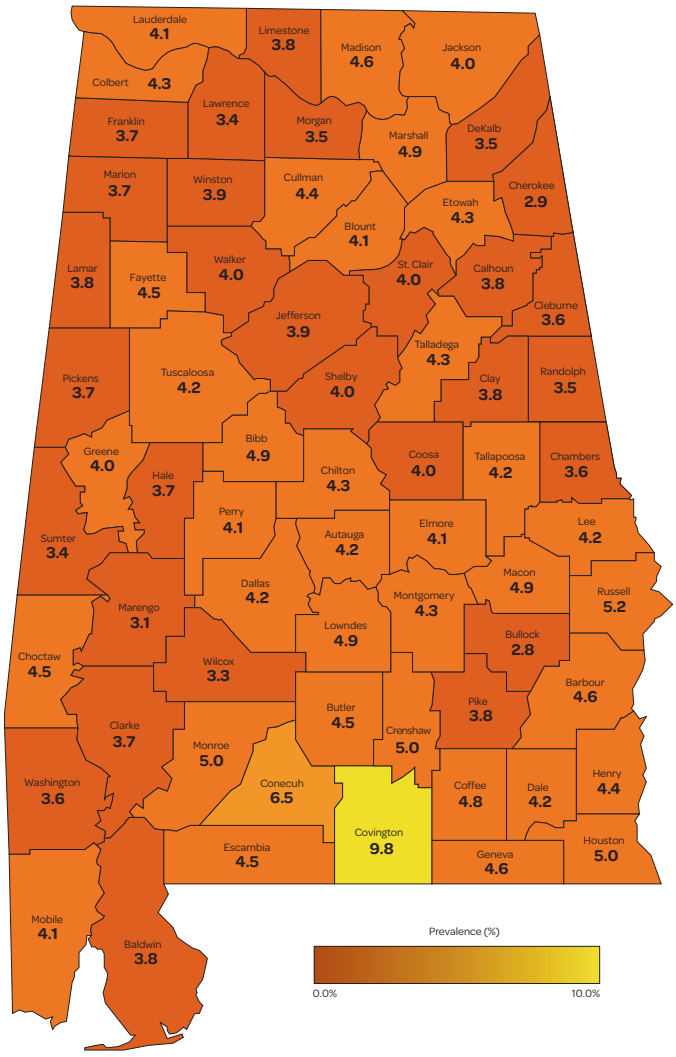
## Stroke Among Medicare Recipients

AL is within the CDC designated "Stroke Belt" that includes most of the states within the southeast, such as Arkansas, Georgia, Indiana, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia. These states had an age-adjusted stroke mortality rate that dramatically exceeds the overall national rate in 2018.[1]

- The AL Medicare stroke prevalence was 4.2 percent for 2018. In the 2015 CHA, the state prevalence was 4.1 percent.
- Covington County had the highest stroke prevalence among Medicare recipients with 9.8 percent, followed by Conecuh with 6.5 percent.
- Bullock County had the lowest prevalence at 2.8 percent of Medicare recipients who had a stroke diagnosis.

Additional demographic information was not available at this time.

**Figure 8.3** – This map represents the percentage of Medicare recipients with strokes throughout the state. Source: Centers for Medicare and Medicaid Services.




## Blue Cross and Blue Shield Members with Cardiovascular Disease-related Claims

CDC estimates that heart disease costs the U.S. about $219 billion each year.[1]

The data presented in Table 8.3 refers to BCBS CVD-related claims. BCBS is one of the largest private insurance companies in AL.

CVDs include heart failure, high blood pressure, and coronary artery disease. The claims are either based on medication usage or therapy that was administered during a physician visit:

- The percentage of AL BCBS members who had CVD-related claims has increased every year but dramatically increased from 2018-2019.
- In 2019, Bullock County had the highest prevalence of BCBS members with CVD-related claims (44.1 percent). Bullock County is located in the East Central Public Health District.

**Table 8.3 – Percentage of AL BCBS Members with Cardiovascular Disease-related Claims, 2016-2019**

| | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|
| **AL** | **18.0** | **20.2** | **21.4** | **26.0** |
| **U.S.** | - | - | - | - |
| **Public Health Districts** | | | | |
| Northern | 16.0 | 17.5 | 18.9 | 22.7 |
| Northeastern | 17.4 | 19.4 | 20.1 | 24.6 |
| West Central | 20.7 | 23.6 | 25.7 | 30.5 |
| Jefferson | 18.3 | 19.9 | 20.1 | 24.1 |
| East Central | 18.9 | 22.3 | 24.1 | 29.4 |
| Southeastern | 19.4 | 22.0 | 23.6 | 28.6 |
| Southwestern | 17.6 | 20.5 | 21.6 | 26.9 |
| Mobile | 18.4 | 20.8 | 22.3 | 27.4 |
| **Geographic Variation** | | | | |
| Rural | 18.6 | 21.2 | 22.6 | 27.5 |
| Urban | 17.5 | 19.5 | 20.6 | 24.8 |
| **Sex** | | | | |
| N/A | - | - | - | - |

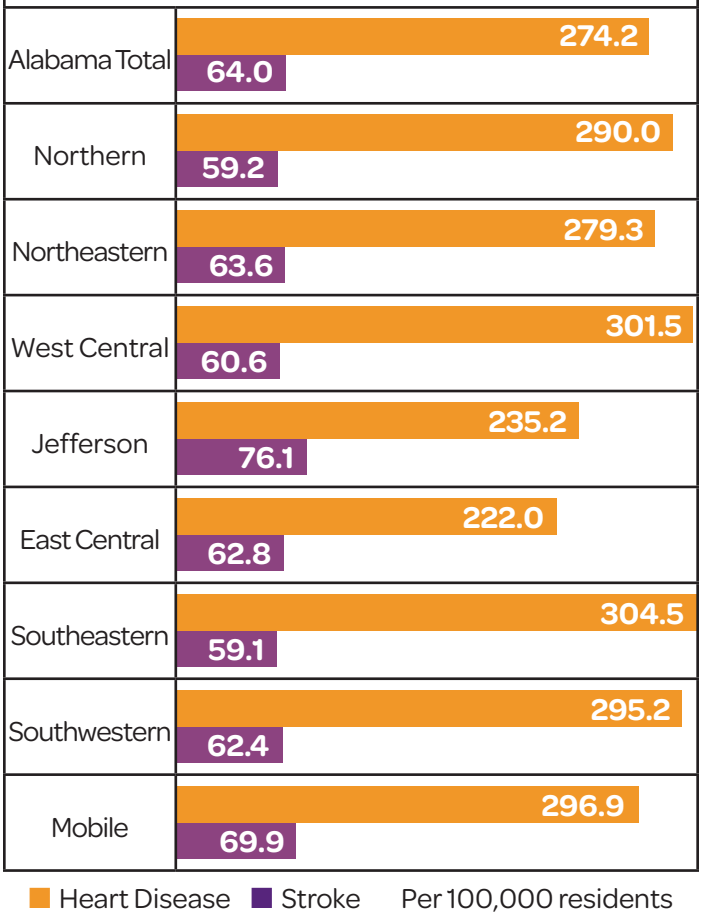
| | | | | |
|---|---|---|---|---|
| **Race** | | | | |
| N/A | - | - | - | - |
| **Household Income** | | | | |
| N/A | - | - | - | - |
| **Age (in years)** | | | | |
| N/A | - | - | - | - |
| **Education** | | | | |
| N/A | - | - | - | - |

## Heart Disease and Stroke Mortality

CVD is the number one cause of death in AL and across most of the U.S. AL had a rate of 274.2 heart disease-related deaths per 100,000 persons in 2019.

- The Southeastern Public Health District had the highest heart disease mortality rate (304.5 deaths per 100,000 persons).
- Rural areas had 313.8 heart disease deaths per 100,000 persons, compared to urban areas with 244.4 heart disease deaths per 100,000 persons.
- White individuals had 319.1 heart disease deaths per 100,000 persons, compared to AA/black individuals with 239.5 heart disease deaths per 100,000 persons.
- Age increased the risk of heart disease mortality with individuals over age 65 years old experiencing 1,201.8 deaths per 100,000 persons.
- Shelby County, located in the Northeastern Public Health District, had the highest stroke rate with 142.1 deaths per 100,000 persons.
- Rural areas had 73.0 stroke deaths per 100,000 persons, compared to urban areas with 58.4 stroke deaths per 100,000 persons.

**Figure 8.4** – Heart disease and stroke mortality rate in AL by public health district. Source: ADPH Center for Health Statistics.




## Data Sources

**Table 8.1 – Percentage of Adult Told They Have High Blood Pressure, 2019.** ADPH, BRFSS, 2019. Data requested March 2021.

**Figure 1.1 – Hypertension Among Medicare Recipients, 2018.** Centers for Medicare and Medicaid Services, 2019. Data requested March 2021.

**Table 8.2 – Percentage of Medicaid Recipients Diagnosed with Hypertension in AL, 2018.** AL Medicaid Agency, 2019. Data requested July 2020.

**Figure 8.2 – Hyperlipidemia Among Medicare Recipients, 2018.** Centers for Medicare and Medicaid Services, 2019. Data requested March 2021.

**Figure 8.3 – Stroke Among Medicare Recipients, 2018.** Centers for Medicare and Medicaid Services, 2019. Data requested March 2021.

**Table 8.3 – Percentage of AL BCBS Members with Cardiovascular Disease-Related Claims, 2016-19.** BCBS Claims Data, 2019. Data requested October 2020.

**Figure 8.4 – Heart Disease and Stroke Mortality Rate in AL, 2019.** ADPH, Center for Health Statistics Mortality Files, 2019. Data requested March 2021.

## Written Sources


1. CDC, Heart Disease, 2019.
2. Americas Health Rankings, Cardiovascular Diseases, 2018.
3. AHA, Food Deserts and Adverse Cardiovascular Outcomes, 2019.
4. AL Medicaid Agency, Hypertension, 2019.

## Community Resources

**ADPH Blood Pressure Monitoring Stations Program**
Location: Statewide
Type: State Coordinated Program

**ADPH Home Health Biomonitoring Program**
Location: Marengo County, AL
Type: State Coordinated Program

**AHA**
Location: Nationwide
Type: Non-profit Organization

**American Journal of Cardiovascular Disease**
Location: Nationwide
Type: Research Institution

**American Lung Association**
Location: Nationwide
Type: Non-profit Organization

**CDC**
Location: Atlanta, GA
Type: Federal Government Organization

**USDHHS Office of Minority Health**
Location: Washington, DC Metro
Type: Research Institution

**Healthy People 2030**
Location: Nationwide
Type: Advocacy Organization

**Million Hearts**
Location: Nationwide
Type: Advocacy Group

**Wellness Coalition**
Location: Montgomery County, AL
Type: Non-profit Organization

## 9. Child Abuse/Neglect

Ranked AL's Ninth Health Indicator

Child abuse and neglect (also referred to as child maltreatment) are important health issues for AL and were identified as the ninth health indicator. Unfortunately, instances of child abuse and neglect are often underreported. In AL, healthcare professionals, schoolteachers, law enforcement offices, social workers, daycare employees, and clergy are required by law to report suspected or known instances of child abuse or neglect.

Physical abuse, sexual abuse, emotional abuse, and neglect are the four most common types of child abuse. Chronic abuse may result in increasing inflammatory stress markers. Adverse childhood experiences can lead to a higher risk for mental health disorders, chronic diseases, and a poorer socioeconomic status in adulthood.[1] All forms of abuse could lead to impaired psychosocial relationships and heightened anxiety.[2]

### Vulnerable Populations

A combination of individual, familial, community, and societal factors contribute to child abuse and neglect outcomes. According to CDC, "rates of child abuse and neglect are five times higher for children in families with low socioeconomic status compared to children in families with higher socioeconomic status."[1] Communities that experience high rates of violence and crime, communities with high unemployment rates, and caregivers with unstable housing are also risk factors for child abuse and neglect.[1]

### Geographic Variation

To protect children's identities, data regarding geographic variation has not been reported. On the state level, child abuse cases have been steadily increasing throughout the years. There were 8,466 child maltreatment victims in 2015, and the number increased to 12,158 new victims in 2018. Also, there were 23.3 child abuse calls per 1,000 children under age 18 years old in 2019.[4]

### Topics Addressed for This Indicator are:

- Child abuse calls.
- Maltreatment types of child victims.

### Highlights

In AL, the Office of Child Protective Services (OCPS) within the Family Services Division of the AL DHR is responsible for collecting child abuse and neglect reports. Data are retrieved from the AL DHR and the National Child Abuse and Neglect Data System:

- Child abuse calls have increased between 2015-2017, with the highest call rate in 2017 (25.1 calls per 1,000 children).
- Most maltreatment calls were made by adults concerned for children under 12 years old, with 16.7 percent of the calls being children under one year old in 2018.

### Risk Factors:

- Domestic violence.
- Parents are going or have gone through a divorce.
- Multiple caretakers.
- Long, unsupervised hours.

## Child Abuse Calls

Child abuse and negligent death calls include those which result from apparent lack of care, abusive head injury/trauma, and other forms of physical violence. Child abuse education and training for parents, educators, and caregivers are aimed at decreasing the number of deaths attributable to abuse and neglect.

In 2019, there were 1,088,306 children less than 18 years old in AL.[5] According to the AL DHR, these call rates were calculated by using the number of unique reported victims, not confirmed. A child may have been the victim of more than one type of maltreatment or reported the same type of maltreatment more than once:

- Child abuse calls increased between 2015-2017, with the highest call rate in 2017 (25.1 calls per 1,000 children).
- In 2019, the child abuse call rate was 23.3 calls per 1,000 children.

Data by demographic groups were not available.

**Figure 9.1 – Child Abuse Calls Per Year, 2015-2019.** The figure displays the rates per 1,000 children. Source: AL DHR.

## Maltreatment Types of Child Victims

Maltreatment encompasses emotional abuse, medical neglect, physical abuse, sexual abuse, and general neglect. A child maltreatment victim is a child who is the subject of a substantiated or indicated maltreatment report. In 2018, there were 11.1 maltreatment victims per 1,000 children:

- Physical abuse was the most prevalent maltreatment type (53.3 percent), followed by neglect (42.9 percent) and sexual abuse (16.6 percent) in 2018.
- In 2018, there were 5,055 unique incidents of confirmed maltreatment. The calls came from 2.4 percent of children having repeated occurrences.[4]
- Most maltreatment calls were made by adults concerned for children under 12, with 16.7 percent of the calls being children under one year old in 2018.

Some columns may be greater than 100 percent, as an individual victim may be counted twice.

| Table 9.1 – Percentage of Child Victims, 2017-2018 | | |
|---|---|---|
| | 2017 | 2018 |
| **AL** | **10,847** | **12,158** |
| **U.S.** | **-** | **-** |
| **Type of Maltreatment** | | |
| Emotional abuse | 0.4 | 0.3 |
| Medical neglect | 0.9 | 0.6 |
| Neglect | 43.9 | 42.9 |
| Physical abuse | 53.6 | 53.3 |
| Sexual abuse | 14.9 | 16.6 |
| **Ethnicity of Victim** | | |
| White | 64.3 | 62.8 |
| AA/black | 26.6 | 28.6 |
| Hispanic | 4.5 | 3.8 |
| Other | 4.6 | 4.8 |
| **Age (in years)** | | |
| 0-12 | 79.2 | 79.7 |
| 13-19 | 20.6 | 19.9 |
| Unknown | 0.3 | 0.5 |

## Data Sources

**Figure 9.1 - Child Abuse Calls per Year, 2015-2019.** AL DHR, Division of Child Protective Services, 2019. Data requested July 2020.

**Table 9.1 – Percentage of Child Victims, 2017-2018.** National Child Abuse and Neglect Data System, 2017-2018. Data requested January 2021.

## Written Sources


1. CDC, Child Abuse and Neglect, 2020.
2. ADPH, Injury Prevention Child Abuse and Neglect, 2021.
3. USDHHS Child Welfare Information Gateway, Cultural Responsiveness: Child Abuse and Neglect, 2020.
4. National Child Abuse and Neglect, Child Maltreatment, 2019.
5. U.S. Census Bureau, American Community Survey, 1 Year Estimate, 2019.


## Community Resources

**ADPH Maternal Child Health Services (MCH) Program**
Location: Montgomery County, AL
Type: State Government Organization

**AL DHR**
Location: Montgomery County, AL
Type: State Government Organization

**Child Protect**
Location: Montgomery County, AL
Type: Advocacy Program

**Child Safety Learning Collaborative**
Location: Atlanta, GA
Type: Federal Funded Program

**Children's Advocacy Center**
Location: Shelby County, AL
Type: Non-profit Organization

**Family Guidance Center – AL**
Location: Jefferson County, AL
Type: Non-Profit Organization

**Heart Gallery AL**
Location: Jefferson County, AL
Type: Nonprofit Organization

**National Child Abuse and Neglect Data System**
Location: Washington, DC Metro
Type: Federal Government Organization

# 10. Environmental Health

## Ranked AL's Tenth Health Indicator

Environmental health is a new addition to the SHA and is currently ranked as tenth AL's health indicator. Environmental health is focused on the natural and man-made environments for the benefit of human health. The environment directly affects the quality of life and is impacted by socioeconomic disparities.[1]

Environmental health can start within an individual's home with proper ventilation, using non-lead-based paint, properly treated tap water for consumption, and removing electrical hazards.[2] Maintaining healthy homes and communities helps keep an individual healthy.

### Vulnerable Populations

Anyone can be exposed to environmental health concerns, but certain populations are more vulnerable. For example, individuals with cardiovascular or respiratory conditions may be more susceptible to heat-related illness,[3] and lead exposure in children can cause underperformance in school and slowed growth and development.

### Geographic Variation

Data by geographic region has not been reported for this indicator.

### Topics Addressed for This Indicator are:

- Drought and hot weather hazards.
- Public water systems.
- Water quality lead testing at schools.

### Highlights

Indicator data are retrieved from the ADPH Bureau of Environmental Services, Environmental Protection Agency (EPA), ALDOT, ALSDE, and local community officials.

- In 2019, there were 510 community water systems throughout AL.
- Lead in water detection tests were conducted at most schools throughout AL in 2017-2019.

### Risk Factors:

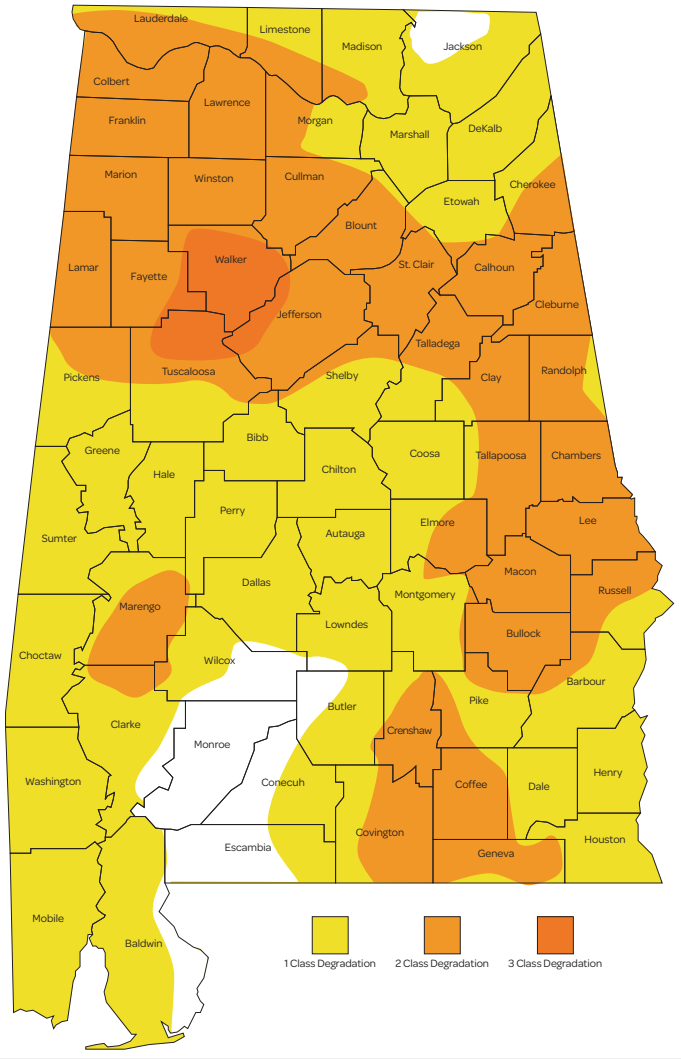
- Low income housing.
- Exposure to chemicals.
- Poor indoor ventilation.
- Drinking unsafe water.
- Unsafe cooking sanitation.
- Climate change.

## Droughts and Hot Weather Hazards

AL has a humid subtropical climate, and the seasonal highs have been steadily increasing over time. A heatwave is a period of excessively hot weather that typically lasts two or more days and may be accompanied by high humidity.[4] In the 1980s, there was an average of four recorded days with heat waves per year. By the 2010s, there were at least 20-30 recorded days a year.[4] Heat waves are also associated with increased hospital admissions for cardiovascular, kidney, and respiratory disorders.[5]

Heat-related illnesses occur when the body is unable to control its temperature. Heat exhaustion can develop after several days of exposure to high temperatures and inadequate or unbalanced replacement of fluids. Vulnerable populations for heat-related illnesses include individuals with chronic medical conditions, infants, older adults, and outdoor workers:[5]

**Figure 10.1** – A map of the highest impacted areas of drought between April 2016, to April 2017. Most of the state was at least in one class degradation away from stable water tables. Source: National Drought Mitigation Center.



- Between 2010-2019, there were 379 days of reported heat waves in AL.
- There were 86 physical injuries and 10 deaths due to heat illness in the same period.[5]
- High temperatures can also lead to water shortages. AL has had two statewide severe drought seasons since 2012. This impacts agriculture, fishing, and river wildlife maintenance.
- Figure 10.1 is a map showing how widespread the impact of the 2016 severe droughts was in AL. There were no reported deaths or injuries related to this event.

Summer is the driest time of the year, which can lead to fire hazards. In the past 10 years, there have been nine wildfires, with no injuries or deaths.[6]

## Public Water Systems

The Safe Drinking Water Act (SDWA) ensures Americans' drinking water quality by regulating public water systems (PWS).[7] Under SDWA, EPA sets standards for drinking water quality and oversees the programs for states, federally recognized tribes, and territories that implement the drinking water program. A key component of water quality is fluoridation.

CDC recognized community water fluoridation as one of the ten greatest public health achievements of the 20th Century.[7] CDC recommends water fluoridation as one of the most practical, cost-effective, equitable, and safe measures a community can take to prevent tooth decay and improve oral health as well.

In 2019, CDC rewarded 56 AL PWS for their consistent and professional adjustment of fluoride content to the recommended level for oral health:[8]

- In 2019, there were 510 community water systems, 22 non-transient, non-community water systems, and 48 transient, non-community water systems in AL.
- Since 2014, AL has conducted at least 542 site visits per year. Less than 22 percent of those PWS had any violations, and no more than 7 sites had a serious violation.
- In Figures 10.2a and 10.2b, there were unusually high amount of violations in 2019 compared to the previous years, but this may have been associated with changes in environmental regulation.

**Figure 10.2a** – The public water systems by calendar year that had any environmental violations. Source: U.S. EPA.

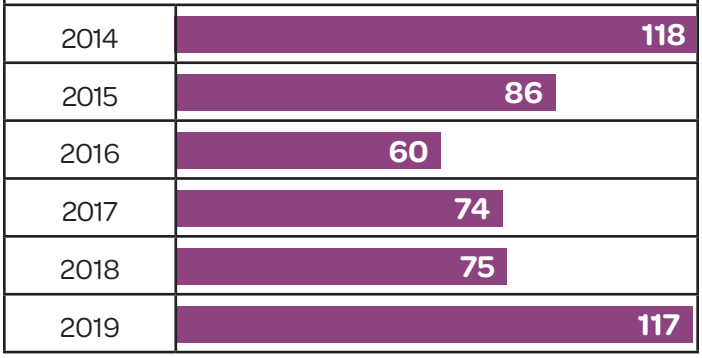
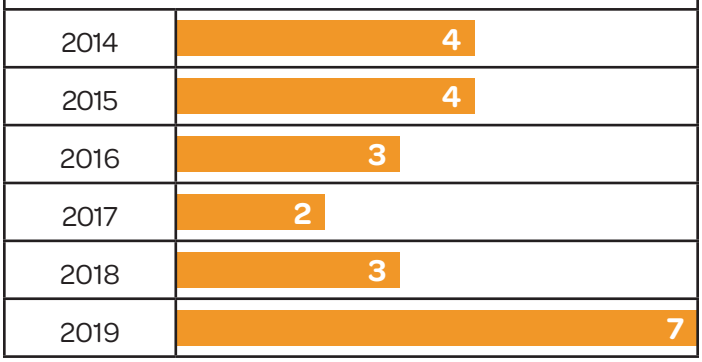



**Figure 10.2b** – The public water systems by calendar year that had any serious environmental violations. Source: U.S. EPA.



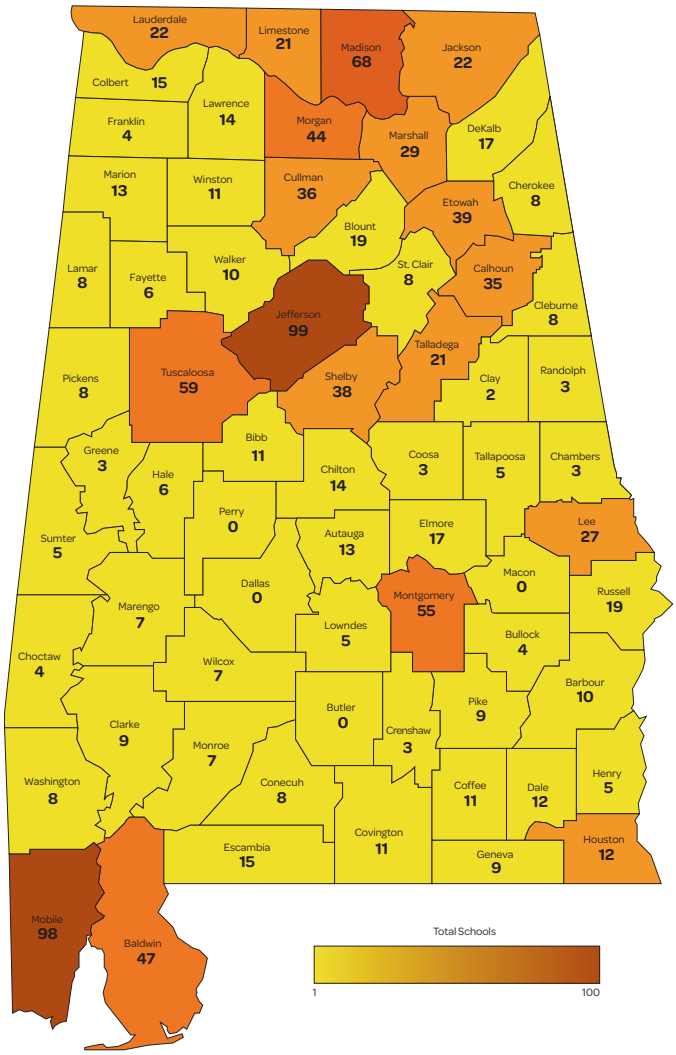

## Water Quality Lead Testing at Schools

Lead is a highly toxic metal that was commonly used in household paint (banned in 1978), gasoline (banned for on-road vehicles in 1995), and plumbing pipes and fixtures.[9]

According to CDC, lead is a multi-system toxicant and can cause learning difficulties, digestive problems, kidney damage, anemia, and high blood pressure. Since the body and nervous system are not fully developed in children under 6 years old, high lead exposure can potentially be life-threatening.[9]

Lead levels from blood tests are reportable to ADPH, and it is recommended to test children at 12 to 24 months of age. There is currently no AL regulatory requirement for testing lead levels in the drinking water at schools.[10] However, because school-aged children are especially vulnerable to the adverse health effects of elevated lead levels, the AL Department of Environmental Management (ADEM) and ALSDE joined together in March of 2016, to develop a voluntary school testing program. Testing was held between April 2017 to November 2019.

**Figure 10.3** – A map of the school water lead testing across AL. No data reported for Butler, Dallas, Perry, and Macon counties. Source: ADEM.




Site selection was based on plumbing fixture type, age, and accessibility to students and staff, with at least one water cooler and one kitchen sink, tested at each school. More information about this process is detailed on the ADEM website:

- In Figure 10.3, the map indicates over 1,100 public schools have been tested.
- Detectable lead levels were in 33 schools in AL, which required affected plumbing fixtures to be taken out of service, replaced, and resampled.

## Data Sources

**Figure 10.1 – U.S. Drought Monitor Class Change – AL, 1 year.** USDA National Drought Mitigation Center, 2016-2018. Data requested July 2020.

**Figure 10.2a – PWS with At Least One Violation.** U.S. EPA, Enforcement and Compliance History Online, 2019. Data requested July 2020.

**Figure 10.2b – PWS with Serious Violations.** U.S. EPA, Enforcement and Compliance History Online, 2019. Data requested July 2020.

**Figure 10.3 – Schools Participating in the Lead Program, 2017-2019.** ADEM, 2019. Data requested March 2021.

## Written Sources


1. Healthy People 2030, Environmental Health, 2020.
2. ADPH Bureau of Environmental Services, Indoor Air Quality and Lead, 2019.
3. CDC, Warning Signs and Symptoms of Heat-Related Illness, 2020.
4. U.S. EPA, Health Effects of Residence near hazardous Waste, 2000.
5. CDC WONDER, Environment: Heat Wave Days May - September 2018.
6. National Oceanic and Atmospheric Administration, AL Weather Events, 2020.
7. CDC, Community Water Fluoridation, 2020.
8. U.S. EPA, Drinking Water Dashboard, 2019.
9. CDC, Lead Levels in Children, 2020.
10. ADEM, Lead Testing in Schools Final Update, 2019.

## Community Resources

**ADPH Indoor Air Quality Lead Branch**
Location: Montgomery County, AL
Type: State Government Organization

**ADEM**
Location: Montgomery County, AL
Type: State Government Organization

**AL Rivers Alliance**
Location: Jefferson County, AL
Type: Non-profit Organization

**Black Warrior River Keeper**
Location: Jefferson County, AL
Type: Non-profit Organization

**Cahaba River Society**
Location: Jefferson County, AL
Type: Non-profit Organization

**Children's Environmental Health Network**
Location: Washington, DC Metro
Type: Non-profit Organization

**Conservation AL**
Location: Montgomery County, AL
Type: Conservation Area

**Emergency Management Agency**
Location: Chilton County, AL
Type: State Government Organization

**Land Trust of North AL**
Location: Madison County, AL
Type: Conservation Area

**Red Mountain Search Dog Association**
Location: Shelby County, AL

Type: Nonprofit Organization

# 11. Violence

## Ranked AL's Eleventh Health Indicator

Alabamians identified violence as the eleventh most significant current health indicator in AL. Violence affects an individual long after the initial incident occurs. A community approach to help prevent violence and understand the risk and protective factors of violence is essential for the health, safety, and well-being of that population.[1]

### Vulnerable Populations

Women and minority groups are more vulnerable to acts of violence against them. According to CDC, 1 in 5 women and nearly 1 in 7 men in the U.S. have experienced some form of intimate partner violence during their lifetime.[1] The Federal Bureau of Investigation's (FBI) Uniform Crime Reporting (UCR) system reports that the motivation for single-bias hate crime incidents across the U.S. targeted victims for their race (57.6 percent), religion (20.1 percent), and sexual orientation (16.7 percent) in 2019.[2]

### Geographic Variation

Crime statistics are considered a valuable indicator for neighborhood safety, particularly firearm violence. Rural areas typically have higher death rates due to longer emergency transport times after any accident.

### Topics Addressed for This Indicator are:

- Violent crimes.
- Violent deaths.
- Firearm-related deaths.

### Highlights

The AL Violent Death Reporting System (AVDRS) is a statewide surveillance program within ADPH and funded by CDC. AVDRS collects detailed information on deaths resulting from violence across the state. Death statistics include suicides, homicides, unintentional firearm deaths, and legal intervention deaths. Data are also retrieved from ADPH Center for Health Statistic Mortality Files:

- In 2019, firearms contributed to most of the suicides/intentional self-harm-related deaths (51.2 percent) and homicides (45.4 percent) in AL.[5]
- In AL, males are four times more likely to die from violent deaths than females (49.8 deaths compared 12.0 deaths per 100,000 persons).

### Risk Factors:

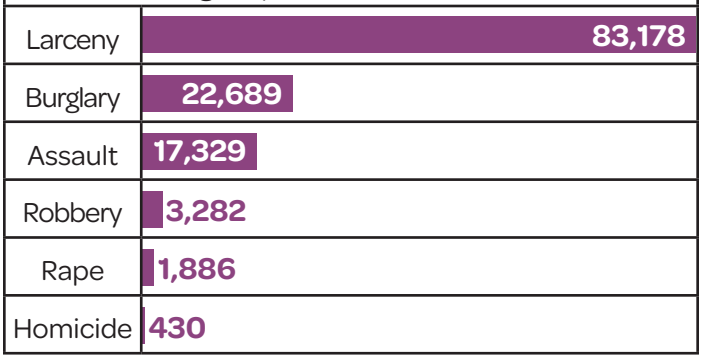
- Low income housing.
- Presence of neighborhood crime.

## Violent Crimes

Violent crimes include assaults, robberies, rapes, and homicides. AL had 22,927 reports for violent crime and 117,379 reports for property crime in 2019:[3]

- Larceny, which is theft of personal property, was the most prominent violent crime in the state during 2019, followed by burglary and assault.[3]
- Domestic violence was indicated in 4,207 offenses for 2018. Of these offenses, 80 percent of the victims were female, 48 percent were AA/black, and 49 percent were white individuals.[3]
- In 2019, Russell County had the highest homicide rate of 34.5 per 100,000 persons. Tallapoosa County had the highest assault rate of 720.9 per 100,000 persons. Jefferson County had the highest rate of robberies with 171.0 per 100,000 persons. Russell County had the highest rate of rapes with 77.6 per 100,000 persons.[3]

**Figure 11.1** – The breakdown of firearm-related violent deaths by cause of death for 2019. Source: AL Law Enforcement Agency UCR.




## Violent Deaths

Violent death is defined as a death that results from the intentional use of physical force or power (threatened or actual) against oneself, another person, group, or community.[4]

In 2019, over 73,000 people died from violent deaths in the U.S., and over 1,400 died in AL:

- In AL, males are four times more likely to die from violent deaths than females (49.8 deaths compared to 12.0 deaths per 100,000 persons).
- In 2019, young adults under 45 were more likely to die than older adults.
- More white individuals died from violence in 2019; however, AA/black individuals had a higher violent death rate.

- Lowndes and Wilcox counties had the highest rate with 92.5 deaths and 77.1 deaths per 100,000 persons, respectively.[5]

| Table 11.1 – Violent Death Rates, 2019 | | |
|---|---|---|
| | **Count** | **Rate per 100,000** |
| **AL** | **1,483** | **30.2** |
| **U.S.** | **73,484** | **22.4** |
| **Public Health Districts** | | |
| Northern | 284 | 26.1 |
| Northeastern | 228 | 28.2 |
| West Central | 112 | 25.8 |
| Jefferson | 270 | 41.0 |
| East Central | 223 | 31.5 |
| Southeastern | 109 | 28.8 |
| Southwestern | 129 | 31.3 |
| Mobile | 128 | 31.0 |
| **Geographic Variation** | | |
| N/A | - | - |
| **Sex** | | |
| Male | 1,179 | 49.8 |
| Female | 304 | 12.0 |
| **Race** | | |
| White | 927 | 29.0 |
| AA/black | 505 | 38.9 |
| Hispanic | 34 | 15.2 |
| Other/not provided | 11 | 14.7 |
| **Household Income** | | |
| N/A | - | - |
| **Age (in years)** | | |
| Under 18 | 73 | 6.7 |
| 18-24 | 210 | 46.9 |
| 25-34 | 297 | 45.9 |
| 35-44 | 292 | 49.2 |
| 45-54 | 220 | 35.7 |
| 55-64 | 176 | 26.8 |
| 65+ | 215 | 25.3 |
| **Education** | | |
| Less than high school | 406 | - |
| High school or GED | 649 | - |
| Some college | 263 | - |
| College graduate or higher | 152 | - |

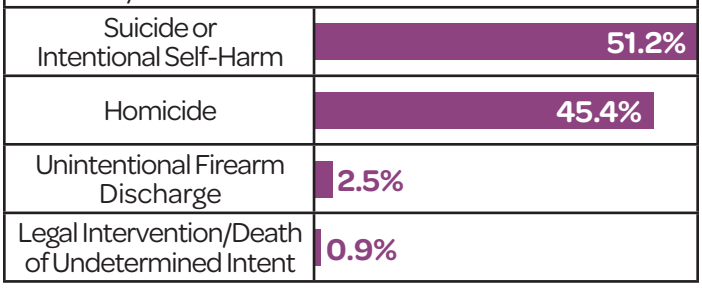
## Firearm-Related Deaths

In 2019, AVDRS identified 1,050 deaths involving a firearm or 21.4 per 100,000 persons:

- Of these deaths, 45.4 percent were homicides, and 51.2 percent were suicides.
- Firearms were the cause of death for 82.4 percent of all homicides and 67.1 percent of all suicides observed in AL during 2019.
- Over 690 firearm deaths occurred at homes, farms, or residential areas. Other common locations for firearm fatalities were motor vehicle-related locations such as in vehicles, parking lots, or streets and highways with over 170 deaths.[7]
- In Figure 11.2, the data shows that firearms contributed to more suicides/intentional self-harm deaths (51.2 percent) than homicides (45.4 percent) in 2019.
- Firearm injuries inflicted by law enforcement agents acting in the line of duty, unintentional firearm deaths, and firearm deaths with undetermined intent, constituted 3.4 percent of all firearm deaths in 2019.[7]
- According to CDC, 6 out of 10 firearm-related deaths in AL were suicides, and 3 out of 10 firearm deaths were homicides, and more people suffer non-fatal firearm-related injuries than fatal injuries.[6]

This data does not include non-fatal firearm-related injuries, long-term effects of injury, or socioeconomic impacts.

**Figure 11.2** – The breakdown of firearm-related violent deaths by cause of death for 2019. Source: AVDRS.




## Data Sources

**Figure 11.1 – AL Violent Crimes, 2019.** AL Law Enforcement Agency, UCR, 2019. Data requested March 2021.

**Table 11.1 – Violent Death Rates, 2019.** ADPH, Center for Health Statistics Mortality Files, 2019. Data requested March 2021.

**Figure 11.2 – Firearm-related Violent Deaths, 2019.** ADPH, AVDRS, 2019. Data requested March 2021.

## Written Sources


1. CDC, Preventing Intimate Partner Violence, 2020.
2. FBI, UCR, 2019.

3 AL Law Enforcement Agency, UCR / Domestic Violence in AL, 2019.

4. CDC, Violence Prevention, 2019

5. ADPH, Center for Health Statistics, 2019.

6. CDC, Firearm Violence Prevention, 2020.

7. ADPH, AVDRS, 2019.

## Community Resources

**2nd Chance, INC**
Location: Etowah County, AL
Type: Domestic Violence Shelter

**AL Appleseed Center for Law and Justice**
Location: Montgomery County, AL
Type: Advocacy Program

**AL Child Death Review System**
Location: Statewide
Type: State Government Organization

**AL Law Enforcement Agency**
Location: Statewide
Type: State Government Organization

**AVDRS**
Location: Statewide
Type: State Government Organization

**CDC Injury Center**
Location: Atlanta, GA
Type: Federal Government Organization

**Crisis Center of Russell County**
Location: Russell County, AL
Type: Domestic Violence Shelter

**Hope Place**
Location: Madison County, AL
Type: Domestic Violence Shelter

**Occupational Safety and Health Administration**
Location: Washington, DC Metro
Type: Federal Government Organization

**National Institute of Justice**
Location: Washington, DC Metro
Type: Federal Government Organization

**SafeHouse of Shelby County**
Location: Shelby County, AL
Type: Domestic Violence Shelter

**University of AL at Birmingham Injury Control Research Center**
Location: Jefferson County, AL
Type: Research Institution

## 12. Cancer

### Ranked AL's Twelfth Health Indicator

Alabamians identified cancer as the twelfth health indicator in AL. Cancer, characterized by uncontrolled growth and spread of abnormal cells, is the second leading cause of death in AL. According to the American Cancer Society®, an estimated 30,830 Alabamians will be diagnosed with cancer in 2021, and an estimated 10,590 Alabamians will die from cancer in 2021.[1]

The top four cancers in AL are colorectal, female breast, lung/bronchus, and prostate cancers.[2] These cancers represent more than 52 percent of all new tumors reported to the AL Statewide Cancer Registry (ASCR) in 2018. Additionally, the burden of each of these cancers could be reduced through behavior modifications such as smoking cessation, weight loss, exercise, and improved nutrition.[2]

According to CDC, regular screening examinations by a healthcare professional can help detect cancers early.[2] It is recommended to follow-up with a doctor during annual visits for mammograms, prostate screenings, and colonoscopies.

**Vulnerable Populations**

In AL, males have slightly less than a 1 in 2 risk of developing any cancer over the course of a lifetime. For women, the risk is a little more than 1 in 3 for developing any cancer over the course of a lifetime.[2] The risk of being diagnosed with cancer increases with age, and more than three-fourths of all cancers are diagnosed in persons 55 years of age and older. Family history and lifestyle choices can affect the frequency and age at which someone may need to be screened for cancer. For example, CDC recommends yearly lung cancer screenings if you formerly were or currently are a heavy smoker.[2]

**Geographic Variation**

Physical access to cancer centers for the initial and follow-up appointments is a barrier for at-risk and new cancer patients.[3] Rural areas have a higher lung cancer incidence, colorectal cancer incidence, cervical cancer incidence, and overall cancer mortality rates compared to urban areas between 2014-2018.

**Topics Addressed for This Indicator are:**

- Overall cancer mortality.
- Colorectal cancer incidence.
- Breast cancer incidence.
- Lung and bronchus cancer incidence.
- Prostate cancer incidence.
- Cervical cancer incidence.

**Highlights**

Data are retrieved from ASCR for all cancer cases diagnosed or treated in AL. Mortality statistics are from ADPH Center for Health Statistics Mortality Files:

- Although the overall cancer mortality rate for AL declined for the past few years, Alabamians have higher overall cancer mortality rates than the U.S.
- In AL, lung cancer incidence rates are significantly higher than the U.S. average.
- In AL, AA/black females have significantly higher rates of breast cancer incidence than white females.
- Prostate cancer is the most common cancer in men. Prostate cancer incidence in AL has declined over the past few years most likely due to changes in screening guidelines resulting in fewer men screened.
- In AL, prostate cancer occurs significantly more in AA/black males than white males.
- The West Central Public Health District has the highest rates of cervical cancer between 2014-2018.

**Risk Factors:**

- Age over 60 years old.
- Family history.
- Immune system deficiency.
- Genetics.
- Alcohol use.
- Smoking.

## Overall Cancer Mortality

In 2019, the AL age-adjusted cancer mortality rate was 209.3 deaths per 100,000 persons and was higher than the national average of 182.7 deaths

per 100,000 persons. In the 2015 CHA, the AL rate was 184.5 deaths per 100,000 persons:

- Although the overall cancer mortality rate for AL declined for the past few years, Alabamians have higher overall cancer mortality rates than the U.S.
- AL's Southwestern Public Health District had the highest cancer mortality rate.
- Rural areas had drastically increased rates from the previous CHA to 2019 (188.8 deaths compared to 233.4 deaths per 100,000 persons).
- Males had a higher mortality rate than females (236.5 deaths compared to183.8 deaths per 100,000 persons).

- In the previous CHA, there was a larger disparity between males and females. The rate for males was 237.2 deaths per 100,000 persons, compared to females with 147.0 deaths per 100,000 persons.
- White individuals had a higher mortality rate than AA/black individuals (239.7 deaths compared to 189.9 deaths per 100,000 persons).

| Table 12.1 – Cancer Mortality Rate, 2019 | | |
|---|---|---|
| | **Count** | **Rate per 100,000** |
| **AL** | **10,263** | **209.3** |
| **U.S.** | **599,601** | **182.7** |
| **Public Health Districts** | | |
| Northern | 2,220 | 203.8 |
| Northeastern | 1,740 | 215.0 |
| West Central | 859 | 198.0 |
| Jefferson | 1,334 | 202.6 |
| East Central | 1,425 | 201.2 |
| Southeastern | 835 | 220.4 |
| Southwestern | 969 | 235.4 |
| Mobile | 881 | 213.2 |
| **Geographic Variation** | | |
| Rural | 4,916 | 233.4 |
| Urban | 5,347 | 191.2 |
| **Sex** | | |
| Male | 5,605 | 236.5 |
| Female | 4,658 | 183.8 |
| **Race** | | |
| White | 7,671 | 239.7 |
| AA/black | 2,464 | 189.9 |
| **Household Income** | | |
| N/A | - | - |
| **Age (in years)** | | |
| 18-24 | - | - |
| 25-34 | 57 | 8.8 |
| 35-44 | 167 | 28.1 |
| 45-54 | 626 | 101.5 |
| 55-64 | 2,093 | 318.2 |
| 65+ | 7,292 | 858.0 |
| **Education** | | |
| Less than high school | 2,307 | - |
| High school or GED | 4,346 | - |
| Some college | 1,925 | - |
| College graduate or higher | 1,605 | - |

## Colorectal Cancer Incidence

Colorectal cancer is the third leading cancer occurring in white males, white females, and AA/black males. Colorectal cancer was the second leading cancer in AA/black females in 2018:[4]

- Alabamians had higher incidence rates of colorectal cancer than the U.S.
- Colorectal cancer occurred significantly more frequently in males than females.
- Colorectal cancer occurred more frequently in AA/black individuals than in white individuals.

Regular screenings allow for early detection, removal of colorectal polyps before they become cancerous, and detect cancer at an early stage where survival is more likely. Screenings could potentially lower both the incidence and mortality of this disease.

| Table 12.2 – Colorectal Cancer, 2014-2018 | |
|---|---|
| | **Rate per 100,000** |
| **AL** | **42.9** |
| **U.S.** | **38.0** |
| **Public Health Districts** | |
| Northern | 41.6 |
| Northeastern | 44.0 |
| West Central | 45.1 |
| Jefferson | 38.1 |
| East Central | 42.5 |
| Southeastern | 41.1 |
| Southwestern | 45.4 |
| Mobile | 45.9 |
| **Geographic Variation** | |
| Rural | 44.4 |
| Urban | 41.1 |
| **Sex** | |
| Female | 37.6 |
| Male | 49.3 |
| **Race** | |
| AA/black | 48.2 |
| Asian or Pacific Islander | 28.4 |
| White | 41.0 |
| **Household Income** | |
| N/A | - |
| **Age (in years)** | |
| Under 50 | 10.1 |
| 50-64 | 86.7 |
| 65+ | 178.6 |
| **Education** | |
| N/A | - |

## Breast Cancer Incidence

Breast cancer is the most common cancer in females and occurs far more frequently in females than males:[5]

- The Northeastern Public Health District had the lowest breast cancer incidence rate in AL (113.5 per 100,000 persons).
- In AL, AA/black females had higher incidence rates than white females.[6]
- Asian/Pacific Islander females in AL had significantly lower breast cancer rates than white or AA/black females. This is consistent with the U.S. average.[6]

Mammography can detect breast cancer early when treatment is more effective, and a cure is more likely.[5]

**Table 12.3 – Breast Cancer, 2014-2018**

| | Rate per 100,000 |
|---|---|
| **AL** | **121.4** |
| **U.S.** | **127.4** |
| **Public Health Districts** | |
| Northern | 122.9 |
| Northeastern | 113.5 |
| West Central | 121.6 |
| Jefferson | 131.1 |
| East Central | 114.0 |
| Southeastern | 121.7 |
| Southwestern | 128.4 |
| Mobile | 118.4 |
| **Geographic Variation** | |
| Rural | 119.6 |
| Urban | 122.3 |
| **Sex** | |
| Female | 121.4 |
| Male | 1.6 |
| **Race** | |
| AA/black | 126.3 |
| Asian or Pacific Islander | 70.6 |
| White | 118.9 |
| **Household Income** | |
| N/A | - |
| **Age (in years)** | |
| Under 50 | 43.7 |
| 50-64 | 256.9 |
| 65+ | 405.5 |
| **Education** | |
| N/A | - |

## Lung and Bronchus Cancer Incidence

Lung cancer is the second most common cancer in white males, white females, and AA/black males. Lung cancer is the third most common cancer in AA/black females:[7]

- Alabamians have significantly higher incidence rates for lung cancer than the U.S.
- Rural areas have higher incidence rates of lung cancer compared to urban areas (68.9 new cases compared to 59.0 new cases per 100,000 persons).

Smoking is the leading cause of developing lung cancer (see Health Indicator 14: Tobacco and Vaping):[7]

- Alabamians have a higher prevalence of smoking than the U.S.[8]
- Males have significantly higher lung cancer rates and smoking prevalence than females.[8]

Radon is the second leading cause of lung cancer and the number one cause of lung cancer among non-smokers:[7]

- In AL, 15 counties have been designated as Zone 1 Radon counties, meaning they have the highest potential for elevated radon levels.[9] For more information on radon levels, visit the ADPH website.

**Table 12.4 – Lung Cancer, 2014-2018**

| | Rate per 100,000 |
|---|---|
| **AL** | **63.7** |
| **U.S.** | **51.4** |
| **Public Health Districts** | |
| Northern | 64.9 |
| Northeastern | 65.3 |
| West Central | 66.3 |
| Jefferson | 58.9 |
| East Central | 60.6 |
| Southeastern | 66.8 |
| Southwestern | 63.1 |
| Mobile | 63.6 |
| **Geographic Variation** | |
| Rural | 68.9 |
| Urban | 59.0 |
| **Sex** | |
| Female | 49.6 |
| Male | 81.9 |
| **Race** | |
| AA/black | 55.9 |
| Asian or Pacific Islander | 35.6 |
| White | 66.2 |

| Household Income | |
|---|---|
| N/A | - |
| **Age (in years)** | |
| Under 50 | 3.8 |
| 50-64 | 121.6 |
| 65+ | 338.0 |
| **Education** | |
| N/A | - |

## Prostate Cancer Incidence

Prostate cancer is the most common cancer in males.[10] In 2018, prostate cancer occurred approximately 75 percent more frequently in AA/black males than white males in the U.S.:

- Jefferson County Health District has the highest rate of prostate cancer incidence (157.5 cases per 100,000 persons).
- In AL, most prostate cancer cases are diagnosed in males older than 65 years old population (597.2 cases per 100,000 persons).[11]
- In AL, prostate cancer occurs significantly more in AA/black males than white males.

Prostate cancer incidence in AL has declined over the past few years most likely due to changes in screening guidelines resulting in fewer men screened.[10]

**Table 12.5 – Prostate Cancer, 2014-2018**

| | Rate per 100,000 |
|---|---|
| **AL** | **122.0** |
| **U.S.** | **108.2** |
| **Public Health Districts** | |
| Northern | 97.6 |
| Northeastern | 116.3 |
| West Central | 136.8 |
| Jefferson | 157.5 |
| East Central | 134.5 |
| Southeastern | 121.1 |
| Southwestern | 107.5 |
| Mobile | 96.6 |
| **Geographic Variation** | |
| Rural | 109.3 |
| Urban | 128.1 |
| **Sex** | |
| Female | - |
| Male | 122.0 |
| **Race** | |
| AA/black | 186.4 |
| Asian or Pacific Islander | 64.3 |
| White | 97.8 |
| **Household Income** | |
| N/A | - |
| **Age (in years)** | |
| Under 50 | 6.1 |
| 50-64 | 280.8 |
| 65+ | 597.2 |
| **Education** | |
| N/A | - |

## Cervical Cancer Incidence

Although all females are at risk for cervical cancer, it occurs most often in women over 30 years old.[12] Cervical cancer is routinely screened during primary care visits:[13]

- The West Central and Southwestern Public Health districts have the highest incidence rates of cervical cancer between 20142018.
- Rural areas have higher rates of cervical cancer than urban areas (10.1 new cases compared to 8.8 new cases per 100,000).
- The age group with the highest incidence was ages 50-64 years old.

A pap smear screening test is recommended to be completed every three years and can help detect early stages of cervical cancer. The HPV vaccine can help prevent cervical cancer.[12]

**Table 12.6 – Cervical Cancer, 2014-2018**

| | Rate per 100,000 |
|---|---|
| **AL** | **9.4** |
| **U.S.** | **7.6** |
| **Public Health Districts** | |
| Northern | 8.5 |
| Northeastern | 10.1 |
| West Central | 10.9 |
| Jefferson | 7.6 |
| East Central | 10.1 |
| Southeastern | 9.5 |
| Southwestern | 10.7 |
| Mobile | 9.0 |

| Geographic Variation | |
|---|---|
| Rural | 10.1 |
| Urban | 8.8 |
| **Sex** | |
| Female | 9.4 |
| Male | - |
| **Race** | |
| AA/black | 9.8 |
| Asian or Pacific Islander | 7.9 |
| White | 9.2 |
| **Household Income** | |
| N/A | - |
| **Age (in years)** | |
| Under 50 | 8.3 |
| 50-64 | 13.5 |
| 65+ | 10.8 |
| **Education** | |
| N/A | - |


3. Rural Health Information Hub, Healthcare Access in Rural Community, 2020.
4. CDC, Colorectal Cancer, 2020.
5. CDC, Breast Cancer, 2020.
6. National Cancer Institute, Surveillance, Epidemiology, and End Results Program, Recent Trends in SEER Age-Adjusted Incidence Rates, 2000-2018, 2021.
7. CDC, Lung and Bronchus Cancer, 2020.
8. CDC, BRFSS Smoking Module, 2019.
9. ADPH, Radon in AL, 2019.
10. CDC, Prostate Cancer, 2020.
11. ADPH, Prostate Cancer Risk Factors, 2020.
12. CDC, Basic Information about Cervical Cancer, 2021.
13. NIH Surveillance, Epidemiology, and End Results Program, Cervix Uteri Recent Trends in Age-Adjusted Incidence Rates, 2018.


## Data Sources

**Table 12.1 – Cancer Mortality Rate, 2019.** ADPH, Center for Health Statistics Mortality Files, 2019. Data requested March 2021.

**Table 12.2 – Colorectal Cancer, 2014-2018.** ADPH, Cancer Epidemiology Division, 2021. Data requested July 2021.

**Table 12.3 – Breast Cancer, 2014-2018.** ADPH, Cancer Epidemiology Division, 2021. Data requested July 2021.

**Table 12.4 – Lung Cancer, 2014-2018.** ADPH, Cancer Epidemiology Division, 2021. Data requested July 2021.

**Table 12.5 – Prostate Cancer, 2014-2018.** ADPH, Cancer Epidemiology Division, 2021. Data requested July 2021.

**Table 12.6 – Cervical Cancer, 2014-2018.** ADPH, Cancer Epidemiology Division, 2021. Data requested July 2021.

## Written Sources


1. American Cancer Society, Cancer Facts – Incidence, 2018.
2. CDC, Cancer Data and Statistics, 2021.


## Community Resources

**AL Breast and Cervical Cancer Early Detection Program**
Location: Montgomery County, AL
Type: Advocacy Program

**American Cancer Society®**
Location: Jefferson County, AL
Type: Non-profit Organization

**American Association for Cancer Research**
Location: Philadelphia, PA
Type: Research Institution

**American Lung Association Central Branch**
Location: Jefferson County, AL
Type: Advocacy Program

**Bullock County Community Health Advisors**
Location: Bulloch County, AL
Type: Non-profit Organization

**Steel Magnolias Breast Cancer**
Location: Calhoun County, AL
Type: Non-profit Organization

**Susan G. Komen Breast Cancer**
Location: Dallas, TX
Type: Non-profit Organization

## 13. Diabetes

### Ranked AL's Thirteenth Health Indicator

Diabetes is a serious health condition and was AL's seventh leading cause of death in 2019. Diabetes can be classified into three main types – Type 1, Type 2, and gestational. The majority of individuals with diabetes have Type 2 diabetes (9095 percent).[1] Type 2 diabetes, means an individual's body cannot make enough insulin to control the body's blood sugar levels.

Individuals most at-risk for Type 2 diabetes are those diagnosed with prediabetes.[1] Prediabetes is when an individual's blood sugar is chronically higher than normal, but not severe enough for a diabetes diagnosis.[1] People with prediabetes can still reverse the condition with lifestyle changes. Gestational diabetes develops during pregnancy and could pose a health risk to the infant.[1]

Many people with diabetes can manage their condition with a consistent, healthy diet and regular exercise, if the condition is detected early.[2] Due to low screening rates and access to health services, diabetes is often diagnosed when it begins to have serious health consequences.[1] Diabetes is highly linked to obesity and lack of exercise and has many associated comorbidities, including heart disease and some eye conditions. The disease can result in limb amputation and the need for dialysis.[1]

#### Vulnerable Populations

According to CDC, "more than 34 million people in the U.S. have diabetes, and 1 in 5 of [those individuals] don't know they have it."[1] Diabetes takes a heavy toll in the AA/black population and in older adults. Almost one-fifth of AA/black individuals and one-fourth of elderly people have diabetes in AL.[3]

#### Geographic Variation

Diabetes was especially prevalent in rural areas. Most of the central AL counties were considered as part of the U.S. Diabetes Belt, an area with considerably high diabetes occurrence among adults.

#### Topics Addressed for This Indicator are:

- Alabamians ever told they have diabetes.
- Diabetes among Medicare recipients.
- Diabetes diagnosis in Medicaid recipients.
- BCBS members with diabetes-related claims.
- Diabetes-related mortality.

#### Highlig hts

Data are retrieved from BCBS Claims, the Centers of Medicaid and Medicare, AL Medicaid Agency, BRFSS, and the ADPH Center for Health Statistics Mortality Files:

- According to BRFSS, 13.9 percent of AL's adult population report they have been told they have diabetes.
- There was an increase in self-reported prevalence among AA/black individuals when compared to white individuals.
- The Southwestern Public Health District had the highest percentage of diabetes diagnoses among their Medicaid recipients at 5.8 percent.
- The rate of diabetes mortality in rural areas was 30.4 deaths per 100,000 persons, compared to urban areas 20.8 deaths per 100,000 persons.

**Risk Factors:**

- Age.
- Family history.
- Overweight.
- Physical inactivity.
- High blood pressure/low high-density lipoprotein/high triglycerides.
- Minority race/ethnicity.
- Pregnancy.

## Adults Ever Told They Have Diabetes

The statewide prevalence of persons who report they have been told they have diabetes was 13.9 percent compared to the U.S. prevalence of 10.8 percent:

- There was a higher prevalence among AA/black individuals (17.3 percent) when compared to white individuals (13.3 percent).
- Geographically, data suggests that areas in the southern part of AL had a higher prevalence of reported diabetes. For example, 12.2 percent of adults in the Northeastern Public Health District reported being diagnosed with diabetes; however, 16.4 percent of Southeastern Public Health District reported being diagnosed with diabetes.
- Individuals within lower income brackets and lower education status are increasingly more at risk for diabetes.
- In 2019, 25.9 percent of Alabamians 65 years or older were told they had diabetes.

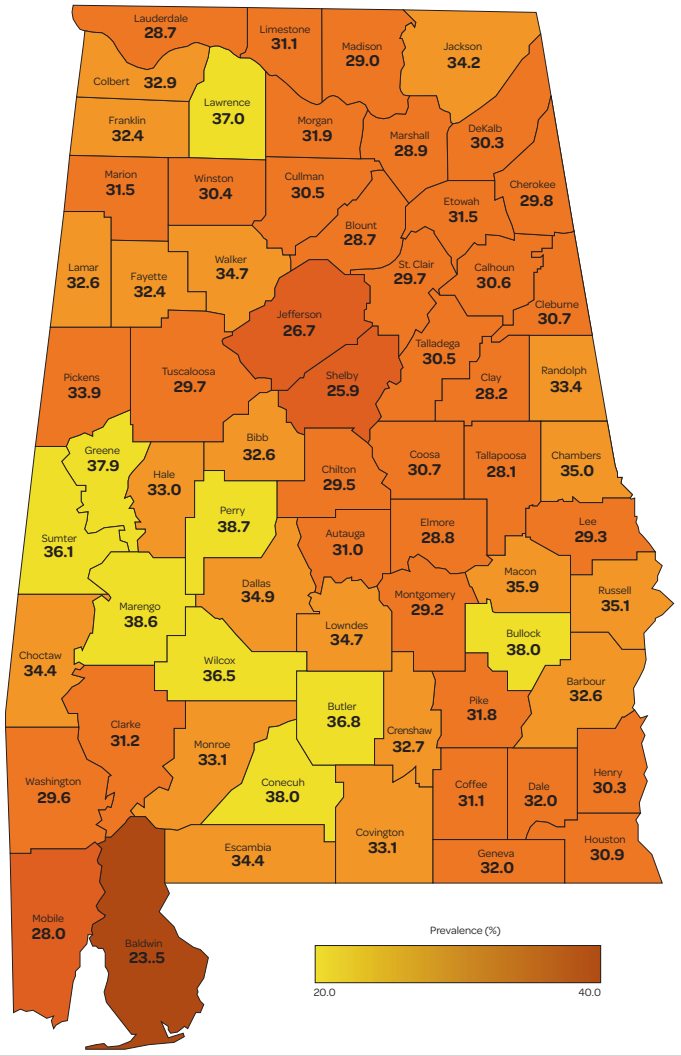
Adults told they had pre-diabetes and women who had diabetes only during pregnancy were excluded from being classified as diagnosed.

| Table 13.1 – Percentage of Adults Ever Told They Have Diabetes, 2019 | | |
|---|---|---|
| | % | 95% CI |
| **AL** | **13.9** | **(13.0-14.9)** |
| **U.S.** | **10.8** | **-** |
| **Public Health Districts** | | |
| Northern | 13.5 | (11.1-15.9) |
| Northeastern | 12.2 | (10.0-14.3) |
| West Central | 13.3 | (10.7-16.0) |
| Jefferson | 12.4 | (10.1-14.7) |
| East Central | 17.1 | (14.2-20.1) |
| Southeastern | 16.4 | (13.6-19.3) |
| Southwestern | 14.4 | (11.8-17.0) |
| Mobile | 13.5 | (11.1-15.9) |
| **Geographic Variation** | | |
| N/A | - | - |
| **Sex** | | |
| Male | 14.1 | (12.6-15.6) |
| Female | 13.8 | (12.6-15.1) |
| **Race** | | |
| White | 13.3 | (12.2-14.4) |
| AA/black | 17.3 | (15.3-19.3) |
| **Household Income** | | |
| Less than $15,000 | 21.2 | (17.5-24.9) |
| $15,000-24,999 | 17.4 | (14.7-20.1) |
| $25,000-34,999 | 17.2 | (13.4-21.0) |
| $35,000-49,999 | 11.5 | (9.2-13.9) |
| $50,000-74,999 | 10.8 | (9.5-12.2) |
| **Age (in years)** | | |
| 35-44 | 6.5 | (4.5-8.6) |
| 45-54 | 14.7 | (12.1-17.2) |
| 55-64 | 25.3 | (22.5-28.2) |
| 65+ | 25.9 | (23.8-27.9) |
| **Education** | | |
| Less than high school | 19.3 | (15.7-22.8) |
| High school or GED | 15.2 | (13.5-17.0) |
| Some college | 12.5 | (11.0-14.0) |
| College graduate or higher | 11.0 | (9.6-12.4) |

- Perry County had the highest diabetes prevalence (38.7 percent) in Medicare recipients for 2018, followed by Marengo County (38.6 percent), and Conecuh County (38.0 percent).
- Baldwin County had the lowest diabetes diagnosis prevalence, with 23.5 percent of Medicare recipients having been diagnosed.

Additional demographic information was not available.

**Figure 13.1** – This map displays the percent of diabetes recipients by county. Medicare provides insurance to persons over the age of 65 years old. Source: Centers for Medicare and Medicaid Services..




## Diabetes Among Medicare Recipients

Diabetes is an age-related disease, meaning the risk of being diagnosed increases in elderly populations.[1] The state prevalence for diabetes in AL Medicare recipients was 30.2 percent for 2018. In the 2015 CHA, the prevalence was 29.7 percent:

## Diabetes Diagnosis in Medicaid Recipients

AL's Medicaid adult and adolescent populations had 4.1 percent of recipients with diabetes-related diagnoses in AL in 2018:

- The Southwestern public health District had the highest percentage of diabetes diagnoses among their Medicaid recipients at 5.8 percent.
- Of those claims, females were twice as likely to have a diabetes diagnosis compared to males.
- The prevalence of white and AA/black individuals with a diabetes diagnosis, although lower, was similar to 2017.

For the district level, only confirmed county diagnoses were included in the calculation.

**Table 13.2 – Percentage of Diabetes Among Medicaid Recipients, 2018**

| | Count | % |
|---|---|---|
| **AL** | **48,908** | **4.1** |
| **U.S.** | **-** | **-** |
| **Public Health Districts** | | |
| Northern | 9,616 | 4.1 |
| Northeastern | 7,184 | 3.7 |
| West Central | 5,862 | 4.8 |
| Jefferson | 4,388 | 2.7 |
| East Central | 6,643 | 3.5 |
| Southeastern | 5,590 | 4.8 |
| Southwestern | 5,508 | 5.8 |
| Mobile | 3,685 | 3.1 |
| **Geographic Variation** | | |
| N/A | - | - |
| **Sex** | | |
| Female | 33,934 | - |
| Male | 14,968 | - |
| **Race** | | |
| White | 21,167 | - |
| Asian or Pacific Islander | 292 | - |
| AA/black | 22,318 | - |
| American Indian/Alaska Native | 112 | - |
| Hispanic | 497 | - |
| Unknown or other | 4,522 | - |
| **Household Income** | | |
| N/A | - | - |
| **Age (in years)** | | |
| Under 21 | 2,899 | - |
| 21 and over | 46,009 | - |
| **Education** | | |
| N/A | - | - |

## Blue Cross and Blue Shield Members with Diabetes-related Claims

In 2017, the total direct medical expenses for diagnosed diabetes in AL were estimated at 4.2 billion dollars.[4] BCBS is the largest private insurance providers for AL. Roughly, 10 percent of BCBS members had claims related to diabetes management or hospitalizations each year between 2016 and 2019.

The BCBS claim usage has increased steadily since 2016. Diabetes claims include eye exams, statin therapy, lipid test, and A1C testing:

- The West Central Public Health District had the highest percent of BCBS members who had diabetes claims, followed by East Central and Southeastern public health districts in 2019.

**Table 13.3 – Percentage of BCBS Members with Diabetes-related Claims, 2016-2019**

| | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|
| **AL** | **9.4** | **10.2** | **10.2** | **10.4** |
| **U.S.** | **-** | **-** | **-** | **-** |
| **Public Health Districts** | | | | |
| Northern | 8.4 | 9.1 | 9.2 | 9.6 |
| Northeastern | 8.7 | 9.5 | 9.4 | 9.6 |
| West Central | 10.9 | 11.2 | 11.7 | 11.9 |
| Jefferson | 9.0 | 9.8 | 9.4 | 9.4 |
| East Central | 10.5 | 11.4 | 11.6 | 11.7 |
| Southeastern | 10.4 | 11.3 | 11.4 | 11.7 |
| Southwestern | 9.9 | 10.6 | 10.7 | 11.2 |
| Mobile | 9.8 | 10.6 | 10.7 | 10.8 |
| **Geographic Variation** | | | | |
| Rural | 10.0 | 10.8 | 11.0 | 11.3 |
| Urban | 9.0 | 9.7 | 9.7 | 9.8 |
| **Sex** | | | | |
| N/A | - | - | - | - |
| **Race** | | | | |
| N/A | - | - | - | - |
| **Household Income** | | | | |
| N/A | - | - | - | - |
| **Age (in years)** | | | | |
| N/A | - | - | - | - |
| **Education** | | | | |
| N/A | - | - | - | - |

## Diabetes-related Mortality

Diabetes mortality was defined as death due to a diabetes-related illness, not necessarily as an underlying disease. In AL, the diabetes mortality rate was 24.9 deaths per 100,000 persons in 2019:

- East Central Public Health District had the highest rate of diabetes mortality with 43.2 deaths per 100,000 persons.
- Wilcox County (Southwestern Public Health District) had the highest rate of diabetes mortality with 86.8 deaths per 100,000 persons.
- The rate of diabetes mortality in rural areas was 30.4 deaths per 100,000 persons, compared to urban areas 20.8 deaths per 100,000 persons.
- After age of 65 years old, the diabetes crude mortality rate almost triples from the previous age bracket to 92.8 deaths per 100,000 persons.

**Table 13.4 – Diabetes-related Mortality, 2019**

| | Count | Rate per 100,000 |
|---|---|---|
| **AL** | **1,223** | **24.9** |
| **U.S.** | **87,647** | **26.7** |
| **Public Health Districts** | | |
| Northern | 226 | 20.7 |
| Northeastern | 138 | 17.0 |
| West Central | 74 | 17.1 |
| Jefferson | 140 | 21.3 |
| East Central | 306 | 43.2 |
| Southeastern | 124 | 32.7 |
| Southwestern | 121 | 29.4 |
| Mobile | 94 | 22.7 |
| **Geographic Variation** | | |
| Rural | 641 | 30.4 |
| Urban | 582 | 20.8 |
| **Sex** | | |
| Male | 705 | 29.8 |
| Female | 518 | 20.4 |
| **Race** | | |
| White | 747 | 23.3 |
| AA/black | 458 | 35.3 |
| Hispanic | 8 | 3.6 |
| **Household Income** | | |
| N/A | - | - |
| **Age (in years)** | | |
| 25-35 | 22 | 3.4 |
| 35-44 | 45 | 7.6 |
| 45-54 | 110 | 17.8 |
| 55-64 | 253 | 38.5 |
| 65+ | 789 | 92.8 |
| **Education** | | |
| Less than high school | 296 | - |
| High school or GED | 524 | - |
| Some college | 225 | - |
| College graduate or higher | 162 | - |

## Data Sources

**Table 13.1 – Percentage of Adults Ever Told They Have Diabetes, 2019.** ADPH, BRFSS, 2019. Data requested March 2021.

**Figure 13.1 – Diabetes Among Medicare Recipients, 2018.** Centers for Medicare and Medicaid Services, 2019. Data requested December 2020.

**Table 13.2 – Percentage of Diabetes Among Medicaid Recipients, 2018.** AL Medicaid Agency, 2018. Data requested July 2020.

**Table 13.3 – Percentage of BCBS Members with Diabetes–related Claims, 2016-2019.** BCBS, Members Diabetes Claims, 2019. Data requested October 2020.

**Table 13.4 – Diabetes–related Mortality, 2019.** ADPH, Center for Health Statistics Mortality Files, 2019. Data requested March 2021.

## Written Sources


1. CDC, Diabetes Prevention, 2020.
2. ADPH, Diabetes General Information, 2021.
3. CDC, BRFSS Diabetes Module, 2019.
4. American Diabetes Association,® Economic Cost of Diabetes in the U.S. in 2017, 2018.


## Community Resources

**AL Safe at School Diabetic Curriculum**
Location: Montgomery County, AL
Type: Educational Resource

**American Diabetes Association®**
Location: Washington, DC Metro
Type: Non-profit Organization

**Association of Diabetes Care and Education Specialists**
Location: Chicago, IL
Type: Educational Resource

**CDC National Diabetes Prevention Program**
Location: Atlanta, GA
Type: Federal Government Program

**Diabetes Research Institute Foundation**
Location: Miami, FL
Type: Non-profit Organization

**Juvenile Diabetes Federation**
Location: New York, NY
Type: Non-profit Organization

## 14. Tobacco Usage and Vaping

### Ranked AL's Fourteenth Health Indicator

Tobacco usage and vaping was ranked AL's fourteenth and has consistently been a public health concern since the 1960s. Smoking is the leading cause of preventable disease and death.[1] While the 67 percent national decrease in current cigarette smokers since 1965 is considered a great public health achievement, tobacco-related disparities persist.[2]

Emerging vaping tobacco products, such as JUUL, led to increased youth initiation and exposure to harmful chemicals, such as heavy metals, volatile organic compounds, diacetyl, and nicotine.[4] Electronic cigarettes or vaping products can also contain tetrahydrocannabinol and other drugs. The long-term effects of e-cigarettes are still unknown.

In August 2019, ADPH began receiving reports from healthcare providers of suspected lung injury cases related to e-cigarette, or vaping products. ADPH began working with CDC and the Food and Drug Administration (FDA) as part of a multistate outbreak investigation related to e-cigarette or vaping use-associated lung injury (EVALI).[5]

#### Vulnerable Populations

According to CDC, nicotine can harm adolescent and young adult brain development. Minority populations suffer disproportionally from smoke-related diseases such as CVDs, cancer, diabetes, and pulmonary diseases. Nicotine is also a health danger for pregnant adults and their developing infants.

#### Geographic Variation

In the U.S., current cigarette smoking is the highest in the Midwest (16.4 percent) and the South (15.4 percent). Smoking is banned in many public settings in major cities, but vaping may still be allowed. The full impact of secondhand smoke effects remains unknown.

#### Topics Addressed for This Indicator are:

- Current adult tobacco smokers.
- Adult nicotine product use.
- Current high school student smokers.
- High school students vaping.

#### Highlights

Data are retrieved from BRFSS, the AL Adult Tobacco Survey, and the Youth Risk Behavioral Surveillance System (YRBSS):

- Individuals who have less than a high school education and individuals who have an income less than $15,000 per year are more likely to be current smokers.
- Currently, the prevalence of AL high school students using cigarettes is 7.1 percent, and the prevalence of those using smokeless tobacco products is 8.9 percent.
- According to YRBSS, over half of AL high school students tried using a vaping device in 2019.
- The percentage of AL high school students who ever used electronic vapor products was higher among whites and Hispanics students than AA/black students.

#### Risk Factors:

- High-stress atmosphere.
- Family usage.
- Race/ethnicity.
- Socioeconomic factors/education.

## Current Adult Cigarette Smokers

While the statewide prevalence for current smokers remains consistently higher than the U.S. average, the overall prevalence decreased. In 2019, the percentage of current adult smokers was 20.2 percent compared to 23.8 percent in the 2015 CHA. Two criteria define current smokers: (1) all adults that have ever smoked at least 100 cigarettes or 5 packs in their lifetime, and (2) individuals that smoke now, every day or some days:

- In 2019, AL had the ninth highest adult smoking prevalence rate in the U.S. (20.2 percent), contributing to 8,600 adult deaths.
- Males are more likely to self-report smoking than females (22.4 compared to 18.4 percent in 2019).
- Individuals with less than a high school education and individuals with an income less than $15,000 per year are more likely to be current smokers.

Since 2011, the percent of adults who currently smoke has declined in AL.

**Table 14.1 – Percentage of Adults Who Are Current Smokers, 2019**

| | % | 95% CI |
|---|---|---|
| **AL** | **20.2** | **(18.9-21.6)** |
| **U.S.** | **16.0** | **-** |
| **Public Health Districts** | | |
| Northern | 19.1 | (15.8-22.5) |
| Northeastern | 22.9 | (19.4-26.4) |
| West Central | 21.3 | (17.6-24.9) |
| Jefferson | 18.6 | (15.0-22.3) |

| | | |
|---|---|---|
| East Central | 17.7 | (14.2-21.2) |
| Southeastern | 24.3 | (20.0-28.7) |
| Southwestern | 20.3 | (16.5-24.2) |
| Mobile | 19.7 | (16.2-23.2) |
| **Geographic Variation** | | |
| N/A | - | - |
| **Sex** | | |
| Male | 22.4 | (20.3-24.5) |
| Female | 18.4 | (16.6-20.1) |
| **Race** | | |
| White | 19.8 | (18.2-21.4) |
| AA/black | 20.3 | (17.6-23.0) |
| **Household Income** | | |
| Less than $15,000 | 33.1 | (28.3-37.9) |
| $15,000-24,999 | 31.5 | (27.3-35.6) |
| $25,000-34,999 | 21.9 | (17.1-26.7) |
| $35,000-49,999 | 18.8 | (15.0-22.6) |
| $50,000-74,999 | 13.2 | (11.4-15.0) |
| **Age (in years)** | | |
| 18-24 | 12.6 | (8.5-16.7) |
| 25-34 | 28.4 | (24.1-32.7) |
| 35-44 | 28.3 | (24.5-32.1) |
| 45-54 | 20.6 | (17.6-23.7) |
| 55-64 | 22.8 | (19.8-25.7) |
| 65+ | 10.8 | (9.3-12.4) |
| **Education** | | |
| Less than high school | 35.1 | (30.1-40.2) |
| High school or GED | 24.3 | (21.8-26.8) |
| Some college | 18.4 | (16.2-20.6) |
| College graduate or higher | 8.0 | (6.6-9.3) |

## Adult Nicotine Product Use

In 2019, the state law was updated to set the minimum age to purchase any tobacco products to 21 years old.[7] Most individuals bought their electronic tobacco devices at specific vape shops, convenience stores, online/internet, and tobacco smoke shop/specialty stores. A significant number of individuals received products from a friend or family member:

- The highest percent of nicotine product use was cigarettes (56.7 percent), followed by cigars (35.1 percent) and smokeless tobacco (22.8 percent).
- Nearly 7 percent of e-cigarette users reported using in the past 30 days. The Adult Tobacco Survey reported that 13.6 percent of AL adults are curious about vaping. One-third of adults described the main reason for trying e-cigarettes was to stop using other nicotine products.

## Current High School Students Smokers

Smoking at an early age can have a severe and adverse impact on an individual's health later in life. The 2019 YRBSS included questions about cigarettes, cigars, smokeless tobacco, shisha/hookah, and electronic vapor products usage for high school students. Since 1995, the overall prevalence of current smokers among high school students declined by more than half since 2013:

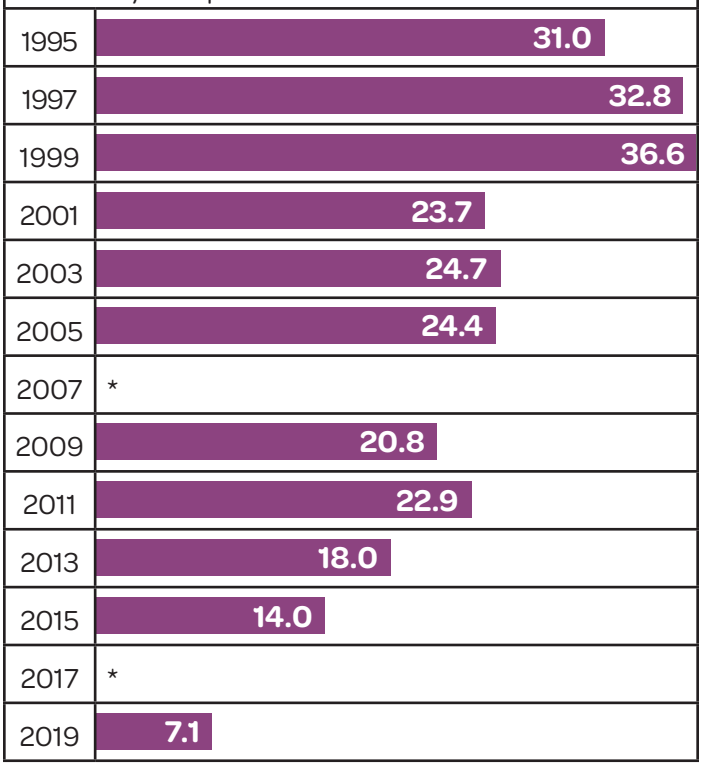
- In 2019, the prevalence of AL high school students using cigarettes is 7.1 percent, and the prevalence of those using smokeless tobacco products was 8.9 percent.[7]

**Table 14.2 – Summary of Nicotine Product Use, 2019**

| | Percent of total who ever used | If ever used, percent who use every day | Percent of total who used in past 30 days | If used in past 30 days, percent who used flavored product | If used in past 30 days, percent who tried to quit in past 12 months |
|---|---|---|---|---|---|
| **Cigarettes** | 56.7 | 27.2 | 19.4 | 1.5 | 42.3 |
| **Cigars** | 35.1 | 3.2 | 5.5 | 59.0 | 57.9 |
| **E-cigarettes** | 21.6 | 3.0 | 6.9 | 59.5 | 30.6 |
| **Smokeless tobacco** | 22.8 | 19.9 | 4.6 | 66.2 | 27.2 |
| **Regular pipe** | 9.6 | 10.4 | 0.9 | 70.1 | 81.5 |
| **Water pipe** | 8.6 | 8.2 | 1.1 | 77.5 | 75.0 |

- Marketing and flavoring of tobacco products make them more appealing to youth. About 16.5 percent of AL high school students reported seeing tobacco products advertised when they use the internet.[7]
- New formulations of these products contain higher levels of nicotine. Nicotine is a highly addictive substance. Almost half (48.2 percent) of AL high school students tried to quit using any tobacco products in the past year.[7]

**Figure 14.1** – The figure displays the percentage of AL high school students who currently smoke cigarettes. AL obtained weighted data every year it administered the survey except for 2007 and 2017. Source: YRBSS.

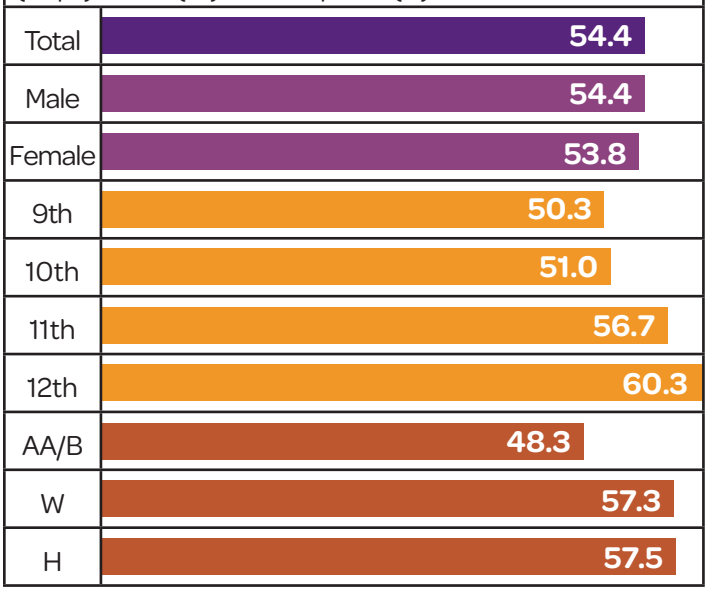



## High School Students Vaping

Vaping includes e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens (blue, NUOY, or Starbuzz):

- Approximately 54 percent of high school students reported ever using electronic vapor products at least once, a significant increase from the 41 percent in 2015. No difference was reported between the percentage of male and female vapers.
- Twelfth graders were most likely to have ever used electronic vapor products. Trying electronic vapor products was more prevalent among both Hispanic and White high school students.
- No significant difference was reported with high school students who currently use electronic vapor products between 2015-2019.[7]
- In 2019, over 10 percent of high school students obtained their own electronic vapor products by purchasing them in a local store.[7]

**Figure 14.2** – The figure displays the percentage of AL high school students who ever used an electronic vapor product. Abbreviated words are African American/black (AA/B), white (W), and Hispanic (H). Source: YRBSS.




## Data Sources

**Table 14.1 – Percentage of Adults Who Are Current Smokers, 2019.** ADPH, BRFSS, 2019. Data requested March 2021.

**Table 14.2 – Summary of Nicotine Product Use, 2019.** AL Adult Tobacco Survey, 2019. Data requested July 2020.

**Figure 14.1 –AL High School Students who Currently Smoked Cigarettes, 1995-2019.** ADPH, YRBSS, 2019. Data requested July 2020.

**Figure 14.2 –AL High School Students Using Electronic Vapor Products, 2019.** ADPH, YRBSS, 2019. Data requested July 2020.

## Written Sources


1. CDC, Smoking and Tobacco Use Health Effects, 2020.
2. CDC Newsroom, Cigarette Smoking Among U.S. Adults Lowest Ever Recorded: 14 Percent in 2017, 2018.
3. CDC, Youth Tobacco Prevention, 2019.
4. CDC, Electronic Cigarettes, 2021.

5. CDC, Outbreak of Lung Injury Associated with the Use of E-Cigarette, or Vaping, Products, 2020.
6. CDC, Secondhand Smoke, 2021.
7. ADPH, AL Tobacco Laws, 2020.
8. CDC, Online High School Youth Risk Behavior Survey, 2019.

## Community Resources

**ADPH Tobacco Prevention and Control Program**
Location: Montgomery County, AL
Type: State Government Organization

**American Lung Association®**
Location: Jefferson County, AL
Type: Advocacy Program

**Coalition for a Tobacco-Free AL**
Location: Montgomery County, AL
Type: Non-profit Organization

**CDC Smoking & Tobacco Use Surveys**
Location: Atlanta, GA
Type: Federal Government Organization

**FDA Tobacco Compliance Check**
Location: Washington, DC Metro
Type: Federal Government Organization

**National Quitline (1-800-QUIT-NOW)**
Location: Nationwide
Type: Advocacy Program

**River of Hope Ministries**
Location: Autauga County, AL
Type: Non-profit Organization

**Truth Initiative**
Location: Montgomery County, AL
Type: Advocacy Program

# Appendix

Additional tables and data sources can be found in the Appendix. Health indicator data are broken down by county level.

# Detailed Alabama Economic and Demographic Data

| AL's Economic and Demographic Data, 2004-2020 | | | |
|---|---|---|---|
| **Age (in years)** | **2005** | **2013** | **2019** |
| 0-17 | 1,113,083 (24.7%) | 1,113,526 (23.0%) | 1,085,597 (22.1%) |
| 18-24 | 456,549 (10.1%) | 483,673 (10.0%) | 457,530 (9.3%) |
| 25-34 | 583,109 (12.9%) | 620,984 (12.8%) | 637,403 (13.0%) |
| 35-44 | 655,351 (14.6%) | 607,139 (12.6%) | 605,739 (12.4%) |
| 45-54 | 639,357 (14.2%) | 664,435 (13.7%) | 609,391 (12.4%) |
| 55-64 | 465,670 (10.3%) | 622,799 (12.9%) | 653,213 (13.4%) |
| 65 or more | 590,372 (13.1%) | 721,166 (14.9%) | 854,312 (17.4%) |
| **Sex** | **2005** | **2013** | **2019** |
| Female | 2,324,069 (51.6%) | 2,488,375 (51.5%) | 2,533,574 (51.7%) |
| Male | 2,179,422 (48.4%) | 2,345,348 (48.5%) | 2,369,611 (48.3%) |
| **Rurality** | **2005** | **2013** | **2019** |
| Rural county residents | 1,824,813 (40.5%) | 1,898,220 (39.3%) | 2.106,245 (43.0%) |
| Urban county residents | 2,678,678 (59.5%) | 2,935,502 (60.7%) | 2,796,940 (57.0%) |
| **Racial Identification** | **2005** | **2013** | **2019** |
| AA/Black | 1,178,398 (26.2%) | 1,284,102 (26.6%) | 1,319,551 (26.9%) |
| American Indian/Alaska Native | 25,920 (0.6%) | 33,581 (0.7%) | 23,265 (0.5%) |
| Asian | 37,929 (0.8%) | 61,859 (1.3%) | 66,129 (1.3%) |
| Native Hawaiian and other Pacific Islander | 2,625 (0.1%) | 5,136 (0.1%) | 1,892 (0.04%) |
| White | 3,215,079 (71.4%) | 3,376,295 (69.8%) | 3,326,375 (67.8%) |
| Two or more races | 43,540 (1.0%) | 72,528 (1.5%) | 91,522 (1.9%) |
| **Ethnicity Identification** | **2005** | **2013** | **2019** |
| Hispanic | 103,472 (2.3%) | 198,019 (4.1%) | 219,296 (4.5%) |
| Non-Hispanic | 4,400,019 (97.7%) | 4,635,703 (97.7%) | 4,683,889 (95.5%) |
| **Education Status** | **2005** | **2013** | **2019** |
| Less than 9th grade | 187,473 (6.4%) | 158,191 (4.9%) | 130,320 (3.9%) |
| Did not complete high school, no diploma or GED | 393,433 (13.4%) | 340,457 (10.6%) | 302,753 (9.0%) |
| Completed high school or GED | 941,983 (32.0%) | 1,001,134 (31.0%) | 1,039,241 (30.9%) |
| Post high school | 791,137 (26.9%) | 968,712 (30.0%) | 1,002,387 (29.8%) |
| College graduate | 630,608 (21.4%) | 756,953 (23.5%) | 885,357 (26.3%) |
| **Marital Status** | **2005** | **2013** | **2019** |
| Never married | 882,167 (24.9%) | 1,184,204 (30.3%) | 1,244,176 (31.1%) |
| Married | 2,006,739 (567%) | 1,948,025 (49.8%) | 1,990,220 (49.7%) |
| Widowed | 253,388 (7.2%) | 289,224 (7.4%) | 272,304 (6.8%) |
| Divorced | 399,440 (11.3%) | 489,545 (12.5%) | 500,559 (12.5%) |
| **Poverty Level** | **2006** | **2013** | **2019** |
| Below the poverty level | 742,064 (16.6%) | 883,371 (18.7%) | 739,108 (15.5%) |
| Above the poverty level | 3,740,108 (83.4%) | 3,832,734 (81.3%) | 3,024,148 (84.5%) |
| **Disability Difficulties** | **2008** | **2013** | **2019** |
| With a disability | 744,472 (16.3%) | 757,829 (15.9%) | 765,018 (15.9%) |
| With a hearing difficulty | 199,230 (4.4%) | 197,873 (4.2%) | 212,724 (4.4%) |
| With a vision difficulty | 153,597 (3.4%) | 143,177 (3.0%) | 150,989 (3.1%) |
| With a cognitive difficulty | 293,533 (6.9%) | 272,517 (6.1%) | 284,282 (6.3%) |
| With an ambulatory difficulty | 438,988 (10.3%) | 438,611 (9.8%) | 421,440 (9.3%) |
| With a self-care difficulty | 160,221 (3.8%) | 154,635 (3.5%) | 147,580 (3.3%) |
| With an independent living difficulty | 288,205 (8.3%) | 267,866 (7.3%) | 275,237 (7.4%) |

# Detailed Alabama Economic and Demographic Data

| AL's Economic and Demographic Data, 2004-2020 | | | |
|---|---|---|---|
| **Education Status** | **2005** | **2013** | **2019** |
| Less than 9th grade | 187,473 (6.4%) | 158,191 (4.9%) | 130,320 (3.9%) |
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| Below the poverty level | 742,064 (16.6%) | 883,371 (18.7%) | 739,108 (15.5%) |
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| With a hearing difficulty | 199,230 (4.4%) | 197,873 (4.2%) | 212,724 (4.4%) |
| With a vision difficulty | 153,597 (3.4%) | 143,177 (3.0%) | 150,989 (3.1%) |
| With a cognitive difficulty | 293,533 (6.9%) | 272,517 (6.1%) | 284,282 (6.3%) |
| With an ambulatory difficulty | 438,988 (10.3%) | 438,611 (9.8%) | 421,440 (9.3%) |
| With a self-care difficulty | 160,221 (3.8%) | 154,635 (3.5%) | 147,580 (3.3%) |
| With an independent living difficulty | 288,205 (8.3%) | 267,866 (7.3%) | 275,237 (7.4%) |
| **Home Ownership** | **2005** | **2013** | **2019** |
| Own | 3,219,052 (72.5%) | 3,248,599 (68.8%) | 3,373,391 (68.8%) |
| Rent | 1,223,506 (27.5%) | 1,470,091 (31.1%) | 1,529,794 (31.2%) |
| **Employment Status** | **2004** | **2014** | **2019** |
| Labor force | 2,136,458 | 2,150,118 | 2,322,591 |
| Employed | 2,014,889 | 2,003,910 | 2,190,444 |
| Unemployed | 121,569 (5.7%) | 146,208 (6.8%) | 147,898 (4.9%) |
| **Travel Time to Work** | **2005** | **2013** | **2019** |
| Under 20 minutes | 880,746 (46.0%) | 856,564 (44.3%) | 888,542 (43.1%) |
| 20-35 minutes | 739,125 (38.6%) | 768,790 (39.8%) | 729,800 (35.4%) |
| 35 minutes or more | 295,603 (15.4%) | 307,501 (15.9%) | 443,240 (21.5%) |
| **Citizenship Status** | **2005** | **2013** | **2019** |
| U.S. citizen by birth | 4,297,870 (96.7%) | 4,637,681 (95.9%) | 4,686,864 (95.6%) |
| U.S. citizen born abroad to American parents | 23,915 (0.5%) | 33,815 (0.7%) | 33,204 (0.7%) |
| U.S. citizen by naturalization | 36,514 (0.8%) | 59,782 (1.2%) | 76,963 (1.6%) |
| Not a U.S. citizen | 84,259 (1.9%) | 102,444 (2.1%) | 97,989 (2.0%) |
| **Veteran Status** | **2005** | **2013** | **2019** |
| Veteran | 403,950 (12.1%) | 355,396 (9.6%) | 318,254 (8.4%) |
| Non-Veteran | 2,940,771 (87.9%) | 3,357,045 (90.4%) | 3,482,441 (91.6%) |
| **Voter Registration** | **2004** | **2014** | **2020** |
| Active registration | 2,617,418 | 2,881,612 | 3,512,630 |
| Inactive registration | 236,790 | 108,921 | 71,625 |
| *Data sourced from the U.S. Census Bureau 2019, USDHHS, HRSA, and the AL Secretary of State Voter Registration Statistics.* | | | |

| Health Indicator 1 - Mental Health and Substance Abuse by County | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| County | Suicide Mortality Rate per 100,000 Persons, 2019 | | Depression Among Medicaid Recipients, 2018 | | Substance Abuse Among Medicaid Recipients, 2018 | | Schizophrenia Among Medicare Recipients, 2018 | |
| | Rank | Rate | Count | % | Count | % | Count | % |
| Autauga | 42 | 14.3 | 328 | 2.6 | 134 | 1.1 | 830 | 2.5 |
| Baldwin | 27 | 17.5 | 1,842 | 4.6 | 535 | 1.3 | 4,241 | 1.9 |
| Barbour | 33 | 16.2 | 246 | 2.5 | 114 | 1.1 | 567 | 4.3 |
| Bibb | 46 | 13.4 | 209 | 3.3 | 87 | 1.4 | 456 | 3.8 |
| Blount | 7 | 27.7 | 363 | 2.7 | 181 | 1.3 | 1,097 | 2.3 |
| Bullock | 56 | 9.9 | 69 | 1.7 | 25 | 0.6 | 85 | 4.6 |
| Butler | 54 | 10.3 | 164 | 2.2 | 41 | 0.5 | 497 | 3.7 |
| Calhoun | 31 | 16.7 | 1,152 | 3.4 | 803 | 2.4 | 3,546 | 2.7 |
| Chambers | 18 | 21.1 | 383 | 3.5 | 118 | 1.1 | 869 | 3.6 |
| Cherokee | 5 | 30.5 | 264 | 3.7 | 136 | 1.9 | 931 | 2.6 |
| Chilton | 36 | 15.8 | 459 | 3.5 | 232 | 1.8 | 728 | 2.7 |
| Choctaw | 66 | 0.0 | 161 | 3.7 | 45 | 1.0 | 438 | 3.0 |
| Clarke | 1 | 38.1 | 217 | 2.6 | 73 | 0.9 | 417 | 3.1 |
| Clay | 6 | 30.2 | 155 | 3.8 | 33 | 0.8 | 413 | 3.1 |
| Cleburne | 3 | 33.5 | 153 | 3.8 | 61 | 1.5 | 375 | 2.1 |
| Coffee | 60 | 7.6 | 436 | 3.4 | 141 | 1.1 | 1,514 | 2.8 |
| Colbert | 11 | 23.5 | 520 | 3.6 | 283 | 2.0 | 2,147 | 2.5 |
| Conecuh | 32 | 16.6 | 111 | 2.3 | 68 | 1.4 | 331 | 3.5 |
| Coosa | 58 | 9.4 | 98 | 3.7 | 28 | 1.0 | 217 | 2.6 |
| Covington | 53 | 10.8 | 507 | 4.2 | 156 | 1.3 | 1,405 | 4.5 |
| Crenshaw | 61 | 7.3 | 165 | 3.2 | 40 | 0.8 | 304 | 4.0 |
| Cullman | 20 | 20.3 | 742 | 3.7 | 286 | 1.4 | 2,350 | 2.3 |
| Dale | 26 | 18.3 | 651 | 4.6 | 234 | 1.7 | 1,525 | 3.2 |
| Dallas | 34 | 16.1 | 632 | 3.4 | 164 | 0.9 | 735 | 5.6 |
| DeKalb | 2 | 35.0 | 712 | 3.1 | 270 | 1.2 | 1,984 | 3.7 |
| Elmore | 19 | 20.9 | 378 | 2.1 | 150 | 0.9 | 1,319 | 2.8 |
| Escambia | 21 | 19.1 | 291 | 2.4 | 157 | 1.3 | 767 | 2.4 |
| Etowah | 15 | 21.5 | 1,180 | 3.9 | 720 | 2.4 | 3,404 | 4.3 |
| Fayette | 4 | 30.7 | 164 | 3.0 | 102 | 1.9 | 691 | 4.0 |
| Franklin | 35 | 15.9 | 370 | 3.6 | 223 | 2.2 | 1,147 | 2.9 |
| Geneva | 13 | 22.8 | 357 | 4.1 | 134 | 1.5 | 961 | 3.2 |
| Greene | 9 | 24.7 | 100 | 2.5 | 64 | 1.6 | 248 | 4.1 |
| Hale | 43 | 13.7 | 183 | 2.7 | 59 | 0.9 | 469 | 3.7 |
| Henry | 28 | 17.4 | 164 | 3.4 | 66 | 1.4 | 499 | 2.9 |

*Data sourced from the ADPH Center for Health Statistics, the AL Medicaid Agency, and the Center for Medicare and Medicaid Services.*

| Health Indicator 1 - Mental Health and Substance Abuse by County | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| County | Suicide Mortality Rate per 100,000 Persons, 2019 | | Depression Among Medicaid Recipients, 2018 | | Substance Abuse Among Medicaid Recipients, 2018 | | Schizophrenia Among Medicare Recipients, 2018 | |
| | Rank | Rate | Count | % | Count | % | Count | % |
| Houston | 22 | 18.9 | 1,343 | 4.2 | 472 | 1.5 | 3,071 | 3.4 |
| Jackson | 44 | 13.6 | 360 | 2.8 | 158 | 1.2 | 1,583 | 2.5 |
| Jefferson | 37 | 15.5 | 4,086 | 2.5 | 2,366 | 1.5 | 9,782 | 4.1 |
| Lamar | 41 | 14.5 | 170 | 3.9 | 92 | 2.1 | 500 | 2.6 |
| Lauderdale | 47 | 12.9 | 820 | 4.0 | 380 | 1.9 | 2,854 | 2.6 |
| Lawrence | 16 | 21.3 | 316 | 3.5 | 171 | 1.9 | 1,062 | 2.4 |
| Lee | 40 | 14.6 | 855 | 2.9 | 231 | 0.8 | 2,147 | 2.8 |
| Limestone | 63 | 7.1 | 528 | 2.9 | 279 | 1.5 | 2,086 | 2.1 |
| Lowndes | 54 | 10.3 | 109 | 2.3 | 32 | 0.7 | 137 | 4.6 |
| Macon | 64 | 5.5 | 163 | 2.5 | 63 | 0.9 | 227 | 4.2 |
| Madison | 24 | 18.5 | 1,688 | 2.7 | 898 | 1.4 | 7,401 | 2.1 |
| Marengo | 17 | 21.2 | 277 | 3.7 | 215 | 2.8 | 558 | 4.7 |
| Marion | 45 | 13.5 | 236 | 2.8 | 219 | 2.6 | 991 | 2.3 |
| Marshall | 51 | 11.4 | 821 | 2.8 | 467 | 1.6 | 2,794 | 3.1 |
| Mobile | 37 | 15.5 | 5,423 | 4.6 | 1,565 | 1.3 | 4,971 | 3.9 |
| Monroe | 66 | 0.0 | 190 | 2.8 | 83 | 1.2 | 356 | 3.6 |
| Montgomery | 50 | 11.5 | 1,557 | 2.2 | 649 | 0.9 | 2,575 | 3.0 |
| Morgan | 12 | 23.4 | 930 | 3.2 | 486 | 1.7 | 3,550 | 2.9 |
| Perry | 52 | 11.2 | 142 | 3.1 | 38 | 0.8 | 263 | 5.7 |
| Pickens | 65 | 5.0 | 186 | 3.0 | 77 | 1.2 | 586 | 3.1 |
| Pike | 39 | 15.1 | 382 | 4.1 | 98 | 1.0 | 546 | 4.8 |
| Randolph | 14 | 22.0 | 254 | 3.6 | 59 | 0.8 | 650 | 3.3 |
| Russell | 29 | 17.3 | 519 | 2.8 | 123 | 0.7 | 1,222 | 3.3 |
| Shelby | 8 | 25.7 | 813 | 2.9 | 414 | 1.5 | 3,288 | 2.6 |
| St. Clair | 61 | 7.3 | 565 | 3.0 | 377 | 2.0 | 1,662 | 2.4 |
| Sumter | 59 | 8.0 | 112 | 2.1 | 75 | 1.4 | 286 | 3.9 |
| Talladega | 23 | 18.8 | 1,003 | 4.0 | 305 | 1.2 | 1,779 | 2.8 |
| Tallapoosa | 49 | 12.4 | 419 | 3.3 | 158 | 1.3 | 1,006 | 2.3 |
| Tuscaloosa | 47 | 12.9 | 1,477 | 3.2 | 655 | 1.4 | 3,853 | 4.5 |
| Walker | 10 | 23.6 | 706 | 3.7 | 536 | 2.8 | 1,936 | 3.7 |
| Washington | 25 | 18.4 | 182 | 4.0 | 46 | 1.0 | 336 | 2.0 |
| Wilcox | 57 | 9.6 | 179 | 3.1 | 37 | 0.6 | 261 | 4.0 |
| Winston | 30 | 16.9 | 204 | 3.0 | 168 | 2.5 | 758 | 2.2 |

*Data sourced from the ADPH Center for Health Statistics, the AL Medicaid Agency, and the Center for Medicare and Medicaid Services.*

| Health Indicator 2 - Access to Care by County | | | | |
|---|---|---|---|---|
| | Adults Who Receive an Annual Checkup, 2018 | HPSA and Scores, 2019 | | |
| County | % | Designation | Number of Full-time Employees (FTEs) Needed to Reach Optimal | HPSA Score |
| Autauga | 78.4 | Low Income Population HPSA | 21.87 | 12 |
| Baldwin | 78.6 | Low Income Population HPSA | 6.35 | 15 |
| Barbour | 80.3 | High Needs Geographic HPSA | 6.08 | 20 |
| Bibb | 77.5 | Geographic HPSA | 2.75 | 16 |
| Blount | 76.6 | Geographic HPSA | 7.21 | 15 |
| Bullock | 81.0 | High Needs Geographic HPSA | 2.38 | 21 |
| Butler | 80.6 | High Needs Geographic HPSA | 1.31 | 15 |
| Calhoun | 78.8 | Low Income Population HPSA | 4.24 | 13 |
| Chambers | 80.6 | Geographic HPSA | 0.82 | 3 |
| Cherokee | 78.5 | Geographic HPSA | 2.75 | 15 |
| Chilton | 76.5 | High Needs Geographic HPSA | 3.83 | 13 |
| Choctaw | 81.5 | High Needs Geographic HPSA | 3.45 | 20 |
| Clarke | 81.2 | High Needs Geographic HPSA | 3.15 | 18 |
| Clay | 78.6 | Geographic HPSA | 0.16 | 12 |
| Cleburne | 76.7 | Geographic HPSA | 3.24 | 18 |
| Coffee | 78.4 | Not Designated | - | - |
| Colbert | 78.4 | Low Income Population HPSA | 7.27 | 14 |
| Conecuh | 81.5 | High Needs Geographic HPSA | 0.01 | 15 |
| Coosa | 80.4 | Geographic HPSA | 1.13 | 14 |
| Covington | 78.1 | Low Income Population HPSA | 2.36 | 16 |
| Crenshaw | 78.6 | Geographic HPSA | 2.42 | 15 |
| Cullman | 76.5 | Low Income Population HPSA | 5.45 | 13 |
| Dale | 78.6 | High Needs Geographic HPSA | 7.66 | 15 |
| Dallas | 82.4 | High Needs Geographic HPSA | 1.53 | 15 |
| DeKalb | 76.0 | High Needs Geographic HPSA | 7.14 | 14 |
| Elmore | 78.0 | High Needs Geographic HPSA | 5.45 | 18 |
| Escambia | 78.5 | High Needs Geographic HPSA | 0.19 | 11 |
| Etowah | 77.9 | Low Income Population HPSA | 6.93 | 15 |
| Fayette | 78.2 | High Needs Geographic HPSA | 6.00 | 15 |
| Franklin | 76.2 | High Needs Geographic HPSA | 0.40 | 10 |
| Geneva | 78.2 | High Needs Geographic HPSA | 0.40 | 14 |
| Greene | 84.4 | High Needs Geographic HPSA | 2.32 | 23 |
| Hale | 82.1 | High Needs Geographic HPSA | 2.03 | 20 |
| Henry | 80.2 | High Needs Geographic HPSA | 3.59 | 11 |

*Data sourced from the CDC BRFSS and ADPH Office of Primary Care and Rural Health.*

| Health Indicator 2 - Access to Care by County | | | | |
|---|---|---|---|---|
| | Adults Who Receive an Annual Checkup, 2018 | HPSA and Scores, 2019 | | |
| County | % | Designation | Number of FTEs Needed to Reach Optimal | HPSA Score |
| Houston | 79.2 | Not Designated | - | - |
| Jackson | 77.6 | Low Income Population HPSA | 1.06 | 9 |
| Jefferson | 80.3 | Low Income Population HPSA | 20.49 | 15 |
| Lamar | 78.5 | High Needs Geographic HPSA | 6.00 | 15 |
| Lauderdale | 78.7 | Low Income Population HPSA | 7.27 | 14 |
| Lawrence | 78.2 | Geographic HPSA | 4.83 | 15 |
| Lee | 77.6 | Low Income Population HPSA | 10.45 | 16 |
| Limestone | 77.3 | Geographic HPSA | 9.64 | 15 |
| Lowndes | 83.1 | High Needs Geographic HPSA | 2.61 | 22 |
| Macon | 83.9 | High Needs Geographic HPSA | 5.45 | 18 |
| Madison | 78.9 | Not Designated | - | - |
| Marengo | 81.3 | High Needs Geographic HPSA | 1.97 | 17 |
| Marion | 77.8 | Low Income Population HPSA | 2.41 | 15 |
| Marshall | 76.2 | High Needs Geographic HPSA | 0.31 | 10 |
| Mobile | 79.4 | Low Income Population HPSA | 21.70 | 13 |
| Monroe | 81.3 | High Needs Geographic HPSA | 2.64 | 18 |
| Montgomery | 81.1 | Low Income Population HPSA | 21.87 | 16 |
| Morgan | 77.4 | Low Income Population HPSA | 6.81 | 11 |
| Perry | 81.9 | High Needs Geographic HPSA | 1.15 | 19 |
| Pickens | 80.1 | High Needs Geographic HPSA | 0.12 | 13 |
| Pike | 78.0 | Low Income Population HPSA | 0.25 | 11 |
| Randolph | 79.2 | High Needs Geographic HPSA | 4.38 | 17 |
| Russell | 79.0 | High Needs Geographic HPSA | 14.47 | 19 |
| Shelby | 77.6 | Not Designated | - | - |
| St. Clair | 77.3 | High Needs Geographic HPSA | 11.00 | 9 |
| Sumter | 82.1 | High Needs Geographic HPSA | 2.27 | 18 |
| Talladega | 79.4 | High Needs Geographic HPSA | 5.93 | 13 |
| Tallapoosa | 79.6 | Low Income Population HPSA | 2.40 | 20 |
| Tuscaloosa | 77.8 | Low Income Population HPSA | 14.79 | 15 |
| Walker | 77.9 | Low Income Population HPSA | 3.10 | 16 |
| Washington | 79.2 | Geographic HPSA | 2.83 | 14 |
| Wilcox | 82.9 | High Needs Geographic HPSA | 0.83 | 18 |
| Winston | 77.9 | High Needs Geographic HPSA | 2.99 | 15 |
| *Data sourced from the CDC BRFSS and ADPH Office of Primary Care and Rural Health.* | | | | |

| Health Indicator 3 –Pregnancy Outcomes by County | | | | |
|---|---|---|---|---|
| County | Infant Mortality Rate Per 1,000 Persons, 2019 | | Teen Pregnancy Rate Per 1,000 Persons, 2019 | |
| | Rank | Rate | Rank | Rate |
| Autauga | 55 | 4.5 | 65 | 8.2 |
| Baldwin | 46 | 5.2 | 61 | 10.2 |
| Barbour | 16 | 10.8 | 29 | 15.7 |
| Bibb | 6 | 20.3 | 45 | 12.7 |
| Blount | 60 | 1.6 | 53 | 12.0 |
| Bullock | 61 | 0.0 | 3 | 25.0 |
| Butler | 55 | 4.5 | 5 | 21.4 |
| Calhoun | 39 | 6.5 | 21 | 17.0 |
| Chambers | 45 | 5.3 | 26 | 16.1 |
| Cherokee | 29 | 8.2 | 40 | 13.5 |
| Chilton | 49 | 5.1 | 15 | 18.7 |
| Choctaw | 61 | 0.0 | 18 | 17.8 |
| Clarke | 61 | 0.0 | 13 | 18.9 |
| Clay | 37 | 6.7 | 30 | 15.6 |
| Cleburne | 12 | 12.9 | 39 | 13.9 |
| Coffee | 55 | 4.5 | 43 | 13.2 |
| Colbert | 52 | 4.8 | 33 | 14.9 |
| Conecuh | 4 | 21.1 | 11 | 19.2 |
| Coosa | 1 | 26.3 | 34 | 14.4 |
| Covington | 52 | 4.8 | 27 | 16.0 |
| Crenshaw | 61 | 0.0 | 23 | 16.6 |
| Cullman | 46 | 5.2 | 36 | 14.2 |
| Dale | 26 | 9.0 | 6 | 21.2 |
| Dallas | 39 | 6.5 | 16 | 17.9 |
| DeKalb | 21 | 10.0 | 38 | 14.1 |
| Elmore | 14 | 11.6 | 57 | 10.6 |
| Escambia | 37 | 6.7 | 18 | 17.8 |
| Etowah | 43 | 5.7 | 11 | 19.2 |
| Fayette | 19 | 10.2 | 7 | 20.8 |
| Franklin | 54 | 4.7 | 8 | 20.2 |
| Geneva | 9 | 14.8 | 22 | 16.7 |
| Greene | 2 | 23.3 | 2 | 25.8 |
| Hale | 5 | 20.7 | 48 | 12.5 |
| Henry | 7 | 16.8 | 50 | 12.2 |

*Data sourced from the ADPH Center for Health Statistics.*

| Health Indicator 3 –Pregnancy Outcomes by County | | | | |
|---|---|---|---|---|
| County | Infant Mortality Rate Per 1,000 Persons, 2019 | | Teen Pregnancy Rate Per 1,000 Persons, 2019 | |
| | Rank | Rate | Rank | Rate |
| Houston | 32 | 7.5 | 32 | 15.4 |
| Jackson | 25 | 9.2 | 40 | 13.5 |
| Jefferson | 21 | 10.0 | 56 | 10.9 |
| Lamar | 29 | 8.2 | 47 | 12.6 |
| Lauderdale | 46 | 5.2 | 51 | 12.1 |
| Lawrence | 61 | 0.0 | 23 | 16.6 |
| Lee | 58 | 4.2 | 64 | 8.5 |
| Limestone | 34 | 7.1 | 59 | 10.5 |
| Lowndes | 10 | 13.9 | 59 | 10.5 |
| Macon | 12 | 12.9 | 51 | 12.1 |
| Madison | 35 | 7.0 | 63 | 8.9 |
| Marengo | 3 | 21.8 | 62 | 10.1 |
| Marion | 42 | 5.8 | 16 | 17.9 |
| Marshall | 44 | 5.6 | 9 | 19.3 |
| Mobile | 36 | 6.9 | 35 | 14.3 |
| Monroe | 28 | 8.5 | 4 | 22.6 |
| Montgomery | 20 | 10.1 | 18 | 17.8 |
| Morgan | 41 | 6.3 | 25 | 16.2 |
| Perry | 24 | 9.4 | 14 | 18.8 |
| Pickens | 17 | 10.7 | 36 | 14.2 |
| Pike | 18 | 10.4 | 45 | 12.7 |
| Randolph | 8 | 16.4 | 42 | 13.4 |
| Russell | 23 | 9.7 | 28 | 15.8 |
| Shelby | 51 | 4.9 | 57 | 10.6 |
| St. Clair | 59 | 4.1 | 67 | 4.8 |
| Sumter | 32 | 7.5 | 55 | 11.6 |
| Talladega | 31 | 8.1 | 53 | 12.0 |
| Tallapoosa | 50 | 5.0 | 66 | 7.2 |
| Tuscaloosa | 15 | 11.0 | 47 | 12.6 |
| Walker | 27 | 8.8 | 9 | 19.3 |
| Washington | 61 | 0.0 | 44 | 12.9 |
| Wilcox | 61 | 0.0 | 1 | 32.1 |
| Winston | 11 | 13.6 | 31 | 15.5 |

*Data sourced from the ADPH Center for Health Statistics.*

| Health Indicator 4 – Nutrition and Physical Activity by County | | | | |
|---|---|---|---|---|
| County | Prevalence of Obesity, 2018 | | Prevalence of No Physical Activity, 2018 | |
| | Rank | % | Rank | % |
| Autauga | 50 | 35.8 | 62 | 27.2 |
| Baldwin | 67 | 29.7 | 66 | 24.9 |
| Barbour | 19 | 40.7 | 10 | 38.1 |
| Bibb | 26 | 38.7 | 45 | 32.1 |
| Blount | 60 | 34.0 | 47 | 31.4 |
| Bullock | 2 | 45.8 | 5 | 39.2 |
| Butler | 16 | 41.2 | 12 | 37.3 |
| Calhoun | 18 | 40.9 | 54 | 30.3 |
| Chambers | 23 | 39.1 | 27 | 34.2 |
| Cherokee | 23 | 39.1 | 36 | 33.2 |
| Chilton | 21 | 40.4 | 28 | 34.1 |
| Choctaw | 12 | 42.9 | 14 | 36.5 |
| Clarke | 20 | 40.5 | 11 | 37.5 |
| Clay | 49 | 35.9 | 26 | 34.4 |
| Cleburne | 35 | 37.1 | 45 | 32.1 |
| Coffee | 45 | 36.0 | 52 | 30.8 |
| Colbert | 29 | 38.0 | 49 | 31.2 |
| Conecuh | 10 | 43.2 | 4 | 40.8 |
| Coosa | 17 | 41.0 | 15 | 35.6 |
| Covington | 32 | 37.6 | 30 | 33.4 |
| Crenshaw | 39 | 36.6 | 33 | 33.3 |
| Cullman | 62 | 33.4 | 42 | 32.3 |
| Dale | 9 | 43.4 | 50 | 31.0 |
| Dallas | 13 | 42.2 | 3 | 41.0 |
| DeKalb | 51 | 35.4 | 24 | 34.6 |
| Elmore | 51 | 35.4 | 61 | 28.1 |
| Escambia | 31 | 37.7 | 21 | 35.1 |
| Etowah | 36 | 37.0 | 42 | 32.3 |
| Fayette | 57 | 34.8 | 25 | 34.5 |
| Franklin | 45 | 36.0 | 29 | 33.7 |
| Geneva | 11 | 43.0 | 13 | 36.9 |
| Greene | 4 | 45.6 | 1 | 41.4 |
| Hale | 4 | 45.6 | 9 | 38.3 |
| Henry | 45 | 36.0 | 40 | 32.8 |
| *Data sourced from BRFSS.* | | | | |

| Health Indicator 4 – Nutrition and Physical Activity by County | | | | |
|---|---|---|---|---|
| County | Prevalence of Obesity, 2018 | | Prevalence of No Physical Activity, 2018 | |
| | Rank | % | Rank | % |
| Houston | 55 | 34.9 | 38 | 33.1 |
| Jackson | 37 | 36.9 | 20 | 35.2 |
| Jefferson | 58 | 34.5 | 60 | 28.2 |
| Lamar | 42 | 36.3 | 36 | 33.2 |
| Lauderdale | 59 | 34.4 | 57 | 28.6 |
| Lawrence | 45 | 36.0 | 47 | 31.4 |
| Lee | 66 | 32.1 | 65 | 25.0 |
| Limestone | 62 | 33.4 | 58 | 28.5 |
| Lowndes | 2 | 45.8 | 8 | 38.8 |
| Macon | 1 | 46.0 | 15 | 35.6 |
| Madison | 64 | 33.1 | 63 | 26.2 |
| Marengo | 7 | 44.6 | 19 | 35.3 |
| Marion | 53 | 35.0 | 30 | 33.4 |
| Marshall | 25 | 38.9 | 42 | 32.3 |
| Mobile | 37 | 36.9 | 56 | 29.9 |
| Monroe | 14 | 42.1 | 7 | 38.9 |
| Montgomery | 39 | 36.6 | 54 | 30.3 |
| Morgan | 34 | 37.4 | 58 | 28.5 |
| Perry | 8 | 44.1 | 2 | 41.2 |
| Pickens | 15 | 41.9 | 17 | 35.5 |
| Pike | 32 | 37.6 | 53 | 30.4 |
| Randolph | 43 | 36.1 | 33 | 33.3 |
| Russell | 28 | 38.3 | 33 | 33.3 |
| Shelby | 65 | 32.7 | 67 | 23.5 |
| St. Clair | 29 | 38.0 | 51 | 30.9 |
| Sumter | 21 | 40.4 | 22 | 34.8 |
| Talladega | 26 | 38.7 | 17 | 35.5 |
| Tallapoosa | 53 | 35.0 | 39 | 32.9 |
| Tuscaloosa | 60 | 34.0 | 64 | 25.4 |
| Walker | 39 | 36.6 | 41 | 32.5 |
| Washington | 55 | 34.9 | 22 | 34.8 |
| Wilcox | 6 | 45.3 | 6 | 39.1 |
| Winston | 43 | 36.1 | 30 | 33.4 |

*Data sourced from BRFSS.*

| Health Indicator 5 - Social Determinants of Health by County | | | | | |
|---|---|---|---|---|---|
| County | Individuals Below Poverty Line by Education Level, 2019 | | | | |
| | Total Below Poverty | < 12 Grade | High School Graduate/GED | AAS/Some College | BS or higher |
| Autauga | 4,436 | 1,439 | 1,919 | 694 | 384 |
| Baldwin | 13,382 | 3,198 | 4,910 | 3,564 | 1,710 |
| Barbour | 3,275 | 1,369 | 1,352 | 475 | 79 |
| Bibb | 1,734 | 502 | 1,013 | 96 | 123 |
| Blount | 4,715 | 1,851 | 1,578 | 1,128 | 158 |
| Bullock | 1,552 | 528 | 724 | 298 | 2 |
| Butler | 2,594 | 670 | 1,285 | 489 | 150 |
| Calhoun | 11,587 | 3,575 | 4,132 | 3,224 | 656 |
| Chambers | 3,376 | 1,284 | 1,287 | 694 | 111 |
| Cherokee | 2,568 | 1,153 | 801 | 488 | 126 |
| Chilton | 4,920 | 1,639 | 2,135 | 889 | 257 |
| Choctaw | 1,684 | 641 | 569 | 394 | 80 |
| Clarke | 3,708 | 1,123 | 1,816 | 598 | 171 |
| Clay | 1,442 | 755 | 433 | 223 | 21 |
| Cleburne | 1,493 | 453 | 584 | 326 | 130 |
| Coffee | 3,881 | 1,180 | 1,237 | 1,199 | 265 |
| Colbert | 5,234 | 1,376 | 2,084 | 1,480 | 294 |
| Conecuh | 1,587 | 518 | 753 | 216 | 100 |
| Coosa | 930 | 329 | 367 | 206 | 28 |
| Covington | 4,003 | 1,235 | 1,387 | 1,189 | 192 |
| Crenshaw | 1,329 | 512 | 537 | 234 | 46 |
| Cullman | 7,928 | 2,481 | 2,841 | 1,983 | 623 |
| Dale | 4,939 | 1,420 | 1,849 | 1,354 | 316 |
| Dallas | 6,366 | 1,909 | 2,594 | 1,680 | 183 |
| DeKalb | 8,695 | 4,161 | 2,512 | 1,613 | 409 |
| Elmore | 5,199 | 1,608 | 2,219 | 861 | 511 |
| Escambia | 4,734 | 1,237 | 222 | 1,105 | 170 |
| Etowah | 9,153 | 3,211 | 2,952 | 2,511 | 479 |
| Fayette | 1,897 | 611 | 711 | 546 | 29 |
| Franklin | 3,040 | 1,194 | 1,096 | 530 | 220 |
| Geneva | 3,437 | 1,313 | 1,332 | 674 | 118 |
| Greene | 1,764 | 541 | 910 | 285 | 28 |
| Hale | 2,164 | 726 | 1,143 | 278 | 17 |
| Henry | 1,442 | 489 | 538 | 360 | 55 |

*Data sourced from the U.S. Census Bureau and County Health Statistics.*

| Health Indicator 5 - Social Determinants of Health by County | | | | | |
|---|---|---|---|---|---|
| County | Individuals Below Poverty Line by Education Level, 2019 | | | | |
| | Total Below Poverty | < 12 Grade | High School Graduate/GED | AAS/Some College | BS or higher |
| Houston | 10,116 | 2,876 | 3,851 | 2,701 | 688 |
| Jackson | 6,489 | 2,003 | 2,732 | 1,461 | 293 |
| Jefferson | 60,121 | 13,345 | 21,661 | 18,348 | 6,767 |
| Lamar | 1,623 | 535 | 647 | 413 | 28 |
| Lauderdale | 7,481 | 2,507 | 2,474 | 1,892 | 608 |
| Lawrence | 3,244 | 1,233 | 1,424 | 501 | 86 |
| Lee | 12,125 | 2,541 | 3,818 | 3,723 | 2,043 |
| Limestone | 6,939 | 2,579 | 2,343 | 1,370 | 647 |
| Lowndes | 1,605 | 597 | 779 | 181 | 48 |
| Macon | 2,489 | 745 | 697 | 767 | 280 |
| Madison | 24,029 | 6,507 | 7,434 | 6,979 | 3,109 |
| Marengo | 2,649 | 623 | 1,455 | 515 | 56 |
| Marion | 3,030 | 1,069 | 1,081 | 654 | 226 |
| Marshall | 10,241 | 3,879 | 3,234 | 2,478 | 650 |
| Mobile | 40,670 | 10,845 | 15,557 | 11,282 | 2,986 |
| Monroe | 4,057 | 843 | 2,404 | 685 | 125 |
| Montgomery | 22,588 | 7,323 | 7,750 | 5,429 | 2,086 |
| Morgan | 10,104 | 4,047 | 3,123 | 2,421 | 513 |
| Perry | 1,874 | 552 | 908 | 343 | 71 |
| Pickens | 2,434 | 939 | 811 | 557 | 127 |
| Pike | 3,033 | 1,158 | 812 | 674 | 389 |
| Randolph | 2,316 | 777 | 951 | 400 | 188 |
| Russell | 6,246 | 1,888 | 2,486 | 1,445 | 427 |
| St. Clair | 7,139 | 2,871 | 2,445 | 1,468 | 355 |
| Shelby | 9,916 | 2,523 | 2,602 | 2,933 | 1,858 |
| Sumter | 2,030 | 512 | 905 | 413 | 200 |
| Talladega | 8,650 | 3,244 | 2,902 | 2,232 | 272 |
| Tallapoosa | 4,343 | 1,579 | 1,352 | 1,174 | 238 |
| Tuscaloosa | 15,014 | 3,631 | 5,815 | 3,699 | 1,869 |
| Walker | 7,331 | 2,625 | 2,845 | 1,745 | 116 |
| Washington | 2,016 | 690 | 839 | 375 | 112 |
| Wilcox | 1,794 | 655 | 634 | 438 | 67 |
| Winston | 2,307 | 879 | 772 | 613 | 43 |

*Data sourced from the U.S. Census Bureau and County Health Statistics.*

| Health Indicator 6 – Sexually Transmitted Infections by County | | | | | | |
|---|---|---|---|---|---|---|
| County | Syphilis Case Rate Per 100,000 Persons, 2019 | | Gonorrhea Case Rate Per 100,000 Persons, 2019 | | Chlamydia Case Rate Per 100,000 Persons, 2019 | |
| | Rank | Rate | Rank | Rate | Rank | Rate |
| Autauga | 38 | 14.3 | 39 | 234.5 | 33 | 581.7 |
| Baldwin | 50 | 8.1 | 61 | 104.4 | 55 | 336.4 |
| Barbour | 7 | 48.6 | 3 | 563.1 | 10 | 899.3 |
| Bibb | 48 | 8.9 | 33 | 259.0 | 39 | 540.3 |
| Blount | 60 | 3.5 | 53 | 148.7 | 46 | 408.1 |
| Bullock | 28 | 19.8 | 6 | 504.9 | 19 | 742.5 |
| Butler | 56 | 5.1 | 17 | 344.5 | 6 | 1,064.4 |
| Calhoun | 32 | 16.7 | 19 | 329.2 | 21 | 732.4 |
| Chambers | 6 | 51.1 | 18 | 339.8 | 22 | 721.7 |
| Cherokee | 58 | 3.8 | 51 | 156.5 | 61 | 282.5 |
| Chilton | 52 | 6.8 | 58 | 126.0 | 54 | 339.9 |
| Choctaw | 10 | 47.7 | 37 | 238.3 | 40 | 492.5 |
| Clarke | 39 | 12.7 | 31 | 270.9 | 17 | 778.9 |
| Clay | 67 | 0.0 | 30 | 272.0 | 34 | 574.2 |
| Cleburne | 53 | 6.7 | 60 | 107.3 | 65 | 234.7 |
| Coffee | 43 | 11.5 | 32 | 263.7 | 27 | 634.3 |
| Colbert | 4 | 68.8 | 22 | 316.8 | 32 | 584.7 |
| Conecuh | 34 | 16.6 | 34 | 256.9 | 30 | 596.7 |
| Coosa | 67 | 0.0 | 7 | 478.3 | 11 | 844.0 |
| Covington | 62 | 2.7 | 44 | 205.1 | 45 | 429.2 |
| Crenshaw | 67 | 0.0 | 29 | 275.9 | 14 | 798.7 |
| Cullman | 42 | 11.9 | 64 | 89.5 | 66 | 231.6 |
| Dale | 15 | 38.6 | 15 | 357.9 | 35 | 569.4 |
| Dallas | 24 | 24.2 | 14 | 365.6 | 9 | 932.9 |
| DeKalb | 61 | 2.8 | 66 | 75.5 | 58 | 300.6 |
| Elmore | 23 | 25.9 | 27 | 279.5 | 36 | 560.3 |
| Escambia | 62 | 2.7 | 40 | 226.6 | 24 | 696.1 |
| Etowah | 45 | 10.8 | 26 | 280.6 | 28 | 613.1 |
| Fayette | 55 | 6.1 | 41 | 220.8 | 44 | 429.4 |
| Franklin | 19 | 31.9 | 55 | 143.5 | 50 | 389.0 |
| Geneva | 58 | 3.8 | 42 | 217.0 | 47 | 407.3 |
| Greene | 16 | 37.0 | 8 | 468.5 | 4 | 1,171.2 |
| Hale | 17 | 34.1 | 1 | 668.9 | 3 | 1,194.5 |
| Henry | 31 | 17.4 | 25 | 284.8 | 31 | 587.0 |

*Data sourced from the ADPH Division of STD Prevention and Control.*

| Health Indicator 6 – Sexually Transmitted Infections by County | | | | | | |
|---|---|---|---|---|---|---|
| County | Syphilis Case Rate Per 100,000 Persons, 2019 | | Gonorrhea Case Rate Per 100,000 Persons, 2019 | | Chlamydia Case Rate Per 100,000 Persons, 2019 | |
| | Rank | Rate | Rank | Rate | Rank | Rate |
| Houston | 11 | 42.5 | 16 | 352.3 | 25 | 692.3 |
| Jackson | 51 | 7.75 | 65 | 85.2 | 64 | 255.7 |
| Jefferson | 14 | 39.0 | 12 | 368.7 | 23 | 707.4 |
| Lamar | 37 | 14.5 | 62 | 94.2 | 51 | 354.9 |
| Lauderdale | 5 | 58.6 | 38 | 237.6 | 42 | 460.0 |
| Lawrence | 18 | 33.4 | 49 | 173.1 | 57 | 303.7 |
| Lee | 20 | 31.0 | 48 | 175.6 | 43 | 446.1 |
| Limestone | 36 | 15.2 | 46 | 195.1 | 52 | 342.7 |
| Lowndes | 13 | 41.1 | 20 | 329.0 | 8 | 945.9 |
| Macon | 2 | 83.0 | 5 | 531.3 | 2 | 1,228.7 |
| Madison | 22 | 28.4 | 10 | 398.2 | 18 | 766.1 |
| Marengo | 35 | 15.9 | 24 | 302.2 | 15 | 795.2 |
| Marion | 46 | 10.1 | 52 | 151.5 | 59 | 296.2 |
| Marshall | 44 | 11.4 | 56 | 131.2 | 53 | 340.0 |
| Mobile | 8 | 48.4 | 13 | 365.7 | 13 | 812.9 |
| Monroe | 67 | 0.0 | 36 | 246.0 | 37 | 554.7 |
| Montgomery | 1 | 86.5 | 4 | 543.1 | 5 | 1,140.5 |
| Morgan | 32 | 16.7 | 43 | 208.1 | 49 | 396.9 |
| Perry | 25 | 22.4 | 21 | 325.0 | 12 | 829.3 |
| Pickens | 3 | 70.2 | 47 | 190.7 | 29 | 602.1 |
| Pike | 21 | 30.2 | 9 | 419.8 | 7 | 954.3 |
| Randolph | 26 | 22.0 | 45 | 202.4 | 38 | 554.5 |
| Russell | 12 | 41.4 | 23 | 312.3 | 16 | 788.5 |
| Shelby | 30 | 17.9 | 63 | 89.6 | 62 | 275.6 |
| St. Clair | 41 | 12.3 | 59 | 125.1 | 56 | 336.3 |
| Sumter | 57 | 4.8 | 67 | 42.6 | 67 | 108.6 |
| Talladega | 27 | 21.3 | 11 | 376.4 | 26 | 690.2 |
| Tallapoosa | 40 | 12.4 | 54 | 148.6 | 48 | 406.3 |
| Tuscaloosa | 9 | 48.2 | 28 | 277.5 | 20 | 736.5 |
| Walker | 54 | 6.3 | 57 | 129.1 | 60 | 284.9 |
| Washington | 29 | 18.4 | 35 | 251.1 | 41 | 471.6 |
| Wilcox | 47 | 9.6 | 2 | 636.3 | 1 | 1,349.7 |
| Winston | 49 | 8.5 | 50 | 169.3 | 63 | 275.1 |

*Data sourced from the ADPH Division of STD Prevention and Control.*

| Health Indicator 7 - Geriatrics by County | | | | | |
|---|---|---|---|---|---|
| County | Alzheimer's Disease Among Medicare Recipients, 2018 | | County | Alzheimer's Disease Among Medicare Recipients, 2018 | |
| | Count | % | | Count | % |
| Autauga | 536 | 10.6 | Houston | 1713 | 12.1 |
| Baldwin | 2885 | 11.1 | Jackson | 901 | 10.3 |
| Barbour | 401 | 11.8 | Jefferson | 6291 | 12.5 |
| Bibb | 261 | 12.6 | Lamar | 303 | 9.9 |
| Blount | 585 | 11.1 | Lauderdale | 1822 | 12.3 |
| Bullock | 122 | 12.7 | Lawrence | 505 | 9.9 |
| Butler | 438 | 12.5 | Lee | 1372 | 10.1 |
| Calhoun | 2075 | 11.6 | Limestone | 1021 | 9.3 |
| Chambers | 673 | 11.4 | Lowndes | 133 | 12.6 |
| Cherokee | 427 | 9.8 | Macon | 257 | 12.4 |
| Chilton | 372 | 10.5 | Madison | 4350 | 10.7 |
| Choctaw | 365 | 12.3 | Marengo | 433 | 10.9 |
| Clarke | 429 | 13.1 | Marion | 602 | 11.3 |
| Clay | 272 | 12.3 | Marshall | 1621 | 11.8 |
| Cleburne | 282 | 11.1 | Mobile | 3887 | 12.3 |
| Coffee | 910 | 12.3 | Monroe | 389 | 10.8 |
| Colbert | 1107 | 11.4 | Montgomery | 2149 | 11.3 |
| Conecuh | 245 | 9.7 | Morgan | 1932 | 11.2 |
| Coosa | 146 | 9.5 | Perry | 250 | 13.6 |
| Covington | 961 | 13.0 | Pickens | 386 | 10.5 |
| Crenshaw | 222 | 10.9 | Pike | 404 | 11.8 |
| Cullman | 1232 | 10.9 | Randolph | 413 | 10.4 |
| Dale | 830 | 11.5 | Russell | 730 | 10.9 |
| Dallas | 666 | 12.7 | Shelby | 1842 | 11.4 |
| DeKalb | 1063 | 10.6 | St. Clair | 817 | 11.0 |
| Elmore | 891 | 10.6 | Sumter | 244 | 10.5 |
| Escambia | 640 | 12.6 | Talladega | 1040 | 10.9 |
| Etowah | 1594 | 11.4 | Tallapoosa | 768 | 11.4 |
| Fayette | 450 | 13.5 | Tuscaloosa | 2221 | 11.8 |
| Franklin | 622 | 12.2 | Walker | 931 | 11.5 |
| Geneva | 533 | 11.5 | Washington | 253 | 9.2 |
| Greene | 177 | 10.6 | Wilcox | 217 | 9.2 |
| Hale | 311 | 11.0 | Winston | 427 | 10.8 |
| Henry | 276 | 10.4 | | | |

*Data sourced from the Center for Medicare and Medicaid Services.*

| Health Indicator 8 - Cardiovascular Diseases by County | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| County | Heart Disease- related Mortality Rate Per 100,000 Persons, 2019 | | Stroke-related Mortality Rate Per 100,000 Persons, 2019 | | Hypertension Among Medicaid Recipients, 2018 | | BCBS Cardiovascular Diseases-related Claims, 2019 | |
| | Rank | Rate | Rank | Rate | Count | % | Count | % |
| Autauga | 60 | 234.5 | 48 | 55.8 | 685 | 5.5 | 7,054 | 27.2 |
| Baldwin | 55 | 248.6 | 33 | 65.6 | 1,426 | 3.6 | 23,334 | 23.2 |
| Barbour | 6 | 441.5 | 23 | 72.3 | 902 | 9.0 | 2,639 | 34.4 |
| Bibb | 29 | 330.4 | 25 | 71.4 | 594 | 9.3 | 3,051 | 32.4 |
| Blount | 45 | 287.1 | 65 | 32.8 | 614 | 4.6 | 6,774 | 26.0 |
| Bullock | 54 | 257.4 | 10 | 88.8 | 379 | 9.4 | 1,115 | 44.1 |
| Butler | 58 | 236.5 | 16 | 81.3 | 798 | 10.7 | 2,968 | 33.8 |
| Calhoun | 23 | 345.9 | 8 | 91.0 | 2,755 | 8.1 | 11,983 | 23.9 |
| Chambers | 48 | 279.7 | 55 | 47.6 | 1,016 | 9.2 | 3,360 | 33.0 |
| Cherokee | 25 | 339.7 | 45 | 57.6 | 498 | 6.9 | 2,072 | 26.0 |
| Chilton | 44 | 290.4 | 28 | 67.9 | 637 | 4.9 | 5,137 | 27.0 |
| Choctaw | 8 | 421.0 | 39 | 62.3 | 689 | 15.7 | 1,353 | 34.3 |
| Clarke | 37 | 304.8 | 26 | 71.1 | 782 | 9.3 | 3,366 | 31.8 |
| Clay | 16 | 392.9 | 29 | 67.8 | 312 | 7.7 | 2,032 | 29.6 |
| Cleburne | 3 | 449.4 | 17 | 80.1 | 341 | 8.5 | 1,238 | 24.0 |
| Coffee | 32 | 324.8 | 62 | 36.6 | 1,140 | 8.8 | 5,213 | 26.4 |
| Colbert | 14 | 405.5 | 43 | 58.4 | 1,532 | 10.6 | 5,881 | 27.1 |
| Conecuh | 4 | 447.5 | 22 | 73.3 | 596 | 12.3 | 1,808 | 40.0 |
| Coosa | 20 | 356.4 | 7 | 93.3 | 226 | 8.4 | 1,258 | 33.1 |
| Covington | 10 | 413.0 | 6 | 97.3 | 1,339 | 11.2 | 4,675 | 31.1 |
| Crenshaw | 33 | 319.5 | 12 | 86.8 | 411 | 8.0 | 2,048 | 29.5 |
| Cullman | 21 | 355.7 | 37 | 63.5 | 1,478 | 7.3 | 9,894 | 23.7 |
| Dale | 53 | 262.3 | 58 | 44.9 | 1,321 | 9.4 | 4,762 | 28.8 |
| Dallas | 15 | 400.6 | 13 | 83.5 | 2,192 | 11.7 | 4,374 | 36.7 |
| DeKalb | 43 | 292.3 | 40 | 60.2 | 1,510 | 6.6 | 6,554 | 24.6 |
| Elmore | 52 | 263.5 | 46 | 57.4 | 882 | 5.0 | 12,516 | 29.3 |
| Escambia | 40 | 303.0 | 14 | 81.6 | 782 | 6.4 | 3,466 | 26.0 |
| Etowah | 28 | 331.5 | 41 | 59.5 | 2,800 | 9.3 | 10,967 | 26.2 |
| Fayette | 34 | 312.8 | 3 | 103.5 | 583 | 10.7 | 2,461 | 29.9 |
| Franklin | 31 | 325.2 | 54 | 47.8 | 807 | 7.9 | 2,956 | 25.6 |
| Geneva | 38 | 304.5 | 52 | 53.2 | 816 | 9.4 | 2,686 | 26.8 |
| Greene | 35 | 308.2 | 63 | 36.4 | 550 | 13.5 | 1,132 | 43.3 |
| Hale | 5 | 443.7 | 15 | 81.5 | 800 | 11.8 | 2,641 | 36.7 |
| Henry | 36 | 308.0 | 56 | 46.5 | 416 | 8.5 | 2,029 | 27.7 |

*Data sourced from the ADPH Center for Health Statistics, the AL Medicaid Agency, and the BCBS Member Claims.*

| Health Indicator 8 - Cardiovascular Diseases by County | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| County | Heart Disease- related Mortality Rate Per 100,000 Persons, 2019 | | Stroke-related Mortality Rate Per 100,000 Persons, 2019 | | Hypertension Among Medicaid Recipients, 2018 | | BCBS Cardiovascular Diseases-related Claims, 2019 | |
| | Rank | Rate | Rank | Rate | Count | % | Count | % |
| Houston | 50 | 272.9 | 61 | 38.2 | 2,472 | 7.8 | 11,021 | 26.2 |
| Jackson | 17 | 391.3 | 11 | 87.0 | 1,112 | 8.8 | 5,234 | 27.3 |
| Jefferson | 59 | 235.2 | 18 | 75.5 | 8,666 | 5.4 | 73,036 | 24.1 |
| Lamar | 22 | 347.7 | 64 | 36.1 | 381 | 8.7 | 1,184 | 26.0 |
| Lauderdale | 51 | 267.4 | 21 | 73.6 | 1,685 | 8.3 | 8,528 | 24.1 |
| Lawrence | 39 | 303.7 | 44 | 57.7 | 829 | 9.2 | 3,653 | 28.0 |
| Lee | 66 | 149.5 | 60 | 41.5 | 1,809 | 6.2 | 13,723 | 23.1 |
| Limestone | 56 | 246.7 | 47 | 57.2 | 1,145 | 6.3 | 8,767 | 21.1 |
| Lowndes | 18 | 390.7 | 2 | 130.3 | 455 | 9.5 | 1,651 | 37.8 |
| Macon | 12 | 409.6 | 5 | 97.6 | 533 | 8.0 | 2,531 | 38.9 |
| Madison | 61 | 233.0 | 49 | 54.8 | 3,453 | 5.5 | 34,616 | 20.2 |
| Marengo | 30 | 328.7 | 27 | 68.2 | 1,173 | 15.5 | 2,615 | 32.9 |
| Marion | 11 | 410.6 | 32 | 67.2 | 822 | 9.8 | 2,909 | 25.9 |
| Marshall | 47 | 281.1 | 33 | 65.6 | 1,904 | 6.5 | 9,496 | 23.4 |
| Mobile | 41 | 296.9 | 36 | 63.6 | 6,403 | 5.4 | 43,478 | 27.4 |
| Monroe | 46 | 284.6 | 9 | 90.2 | 748 | 11.0 | 2,543 | 30.0 |
| Montgomery | 64 | 200.9 | 29 | 67.8 | 3,855 | 5.4 | 30,710 | 31.9 |
| Morgan | 27 | 331.7 | 51 | 53.7 | 1,745 | 6.1 | 11,502 | 22.8 |
| Perry | 63 | 212.9 | 65 | 32.8 | 721 | 15.7 | 1,206 | 42.3 |
| Pickens | 13 | 406.4 | 19 | 75.2 | 959 | 15.3 | 2,654 | 34.6 |
| Pike | 57 | 244.6 | 53 | 51.0 | 897 | 9.5 | 3,763 | 30.9 |
| Randolph | 7 | 431.3 | 59 | 44.0 | 696 | 9.9 | 1,831 | 28.5 |
| Russell | 65 | 176.0 | 42 | 58.8 | 1,147 | 6.3 | 2,442 | 25.9 |
| Shelby | 9 | 413.4 | 1 | 142.1 | 982 | 3.5 | 26,902 | 22.1 |
| St. Clair | 67 | 95.5 | 67 | 17.2 | 1,049 | 5.6 | 11,613 | 26.7 |
| Sumter | 49 | 273.6 | 38 | 63.0 | 885 | 16.9 | 1,489 | 40.0 |
| Talladega | 26 | 337.6 | 31 | 67.6 | 2,020 | 8.1 | 8,945 | 26.5 |
| Tallapoosa | 19 | 384.0 | 35 | 64.2 | 963 | 7.7 | 5,724 | 31.3 |
| Tuscaloosa | 62 | 216.4 | 50 | 54.6 | 3,387 | 7.4 | 28,718 | 29.3 |
| Walker | 1 | 517.9 | 20 | 73.8 | 1,475 | 7.6 | 8,514 | 30.8 |
| Washington | 42 | 294.0 | 23 | 73.3 | 487 | 10.7 | 2,199 | 29.7 |
| Wilcox | 2 | 501.3 | 3 | 103.5 | 837 | 14.5 | 1,467 | 38.6 |
| Winston | 24 | 342.8 | 56 | 46.5 | 804 | 11.9 | 3,001 | 27.2 |

*Data sourced from the ADPH Center for Health Statistics, the AL Medicaid Agency, and the BCBS Member Claims.*

| Health Indicator 9 – Child Abuse and Neglect by County | | | | | |
|---|---|---|---|---|---|
| County | Total Children Under 18 by County, 2019 | | County | Total Children Under 18 by County, 2019 | |
| | Count | % | | Count | % |
| Autauga | 12,962 | 23.2 | Houston | 24,247 | 22.9 |
| Baldwin | 47,549 | 21.3 | Jackson | 10,687 | 20.7 |
| Barbour | 5,085 | 20.6 | Jefferson | 150,155 | 22.8 |
| Bibb | 4,546 | 20.3 | Lamar | 2,954 | 21.4 |
| Blount | 13,242 | 22.9 | Lauderdale | 18,082 | 19.5 |
| Bullock | 2,101 | 20.8 | Lawrence | 7,079 | 21.5 |
| Butler | 4,279 | 22.0 | Lee | 34,718 | 21.1 |
| Calhoun | 24,425 | 21.5 | Limestone | 22,058 | 22.3 |
| Chambers | 6,917 | 20.8 | Lowndes | 2,140 | 22.0 |
| Cherokee | 4,951 | 18.9 | Macon | 3,090 | 17.1 |
| Chilton | 10,574 | 23.8 | Madison | 80,548 | 21.6 |
| Choctaw | 2,480 | 19.7 | Marengo | 4,244 | 22.5 |
| Clarke | 5,031 | 21.3 | Marion | 6,179 | 20.8 |
| Clay | 2,673 | 20.2 | Marshall | 24,290 | 25.1 |
| Cleburne | 3,355 | 22.5 | Mobile | 96,278 | 23.3 |
| Coffee | 12,405 | 23.7 | Monroe | 4,375 | 21.1 |
| Colbert | 11,545 | 20.9 | Montgomery | 52,998 | 23.4 |
| Conecuh | 2,474 | 20.5 | Morgan | 27,287 | 22.8 |
| Coosa | 1,749 | 16.4 | Perry | 1,865 | 20.9 |
| Covington | 8,151 | 22.0 | Pickens | 3,866 | 19.4 |
| Crenshaw | 3,140 | 22.8 | Pike | 6,292 | 19.0 |
| Cullman | 18,848 | 22.5 | Randolph | 4,794 | 21.1 |
| Dale | 11,211 | 22.8 | Russell | 13,969 | 24.1 |
| Dallas | 8,667 | 23.3 | Shelby | 20,767 | 23.2 |
| DeKalb | 1,7092 | 23.9 | St. Clair | 48,983 | 22.5 |
| Elmore | 18,110 | 22.3 | Sumter | 2,361 | 19.0 |
| Escambia | 8,242 | 22.5 | Talladega | 16,715 | 20.9 |
| Etowah | 21,783 | 21.3 | Tallapoosa | 8,235 | 20.4 |
| Fayette | 3,440 | 21.1 | Tuscaloosa | 43,965 | 21.0 |
| Franklin | 7,778 | 24.8 | Walker | 14,102 | 22.2 |
| Geneva | 5,780 | 22.0 | Washington | 3,608 | 22.1 |
| Greene | 1,768 | 21.8 | Wilcox | 2,417 | 23.3 |
| Hale | 3,370 | 23.0 | Winston | 4,773 | 20.2 |
| Henry | 3,510 | 20.4 | | | |

*Data sourced from the U.S. Census Bureau.*

| Health Indicator 10 – Environmental Health by County | | | |
|---|---|---|---|
| County | Number of Schools Tested for Lead in the Water | County | Number of Schools Tested for Lead in the Water |
| Autauga | 13 | Houston | 32 |
| Baldwin | 47 | Jackson | 22 |
| Barbour | 10 | Jefferson | 99 |
| Bibb | 11 | Lamar | 8 |
| Blount | 19 | Lauderdale | 22 |
| Bullock | 4 | Lawrence | 14 |
| Butler | 0 | Lee | 27 |
| Calhoun | 35 | Limestone | 21 |
| Chambers | 3 | Lowndes | 5 |
| Cherokee | 8 | Macon | 0 |
| Chilton | 14 | Madison | 68 |
| Choctaw | 4 | Marengo | 7 |
| Clarke | 9 | Marion | 13 |
| Clay | 2 | Marshall | 29 |
| Cleburne | 8 | Mobile | 98 |
| Coffee | 11 | Monroe | 7 |
| Colbert | 15 | Montgomery | 55 |
| Conecuh | 8 | Morgan | 44 |
| Coosa | 3 | Perry | 0 |
| Covington | 11 | Pickens | 8 |
| Crenshaw | 3 | Pike | 9 |
| Cullman | 36 | Randolph | 3 |
| Dale | 12 | Russell | 19 |
| Dallas | 0 | Shelby | 38 |
| DeKalb | 17 | St. Clair | 8 |
| Elmore | 17 | Sumter | 5 |
| Escambia | 15 | Talladega | 21 |
| Etowah | 39 | Tallapoosa | 5 |
| Fayette | 6 | Tuscaloosa | 59 |
| Franklin | 4 | Walker | 10 |
| Geneva | 9 | Washington | 8 |
| Greene | 3 | Wilcox | 7 |
| Hale | 6 | Winston | 11 |
| Henry | 5 | | |
| *Data sourced from ADEM.* | | | |

# Health Indicator 11 - Violence by County

| County | Ranking of Number of Violent Crimes by County, 2018-2019 | | | | | | | | Violence Mortality Rate Per 100,000 Persons, 2019 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Homicides | | Assaults | | Robbery | | Rape | | Rank | Rate |
| | 2018 | 2019 | 2018 | 2019 | 2018 | 2019 | 2018 | 2019 | | |
| Houston | 5 | 7 | 7 | 6 | 6 | 6 | 15 | 6 | 39 | 29.3 |
| Jackson | 67 | 15 | 22 | 18 | 41 | 31 | 44 | 33 | 56 | 19.4 |
| Jefferson | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 12 | 41.0 |
| Lamar | 67 | 67 | 63 | 58 | 63 | 31 | 53 | 32 | 52 | 21.7 |
| Lauderdale | 13 | 14 | 23 | 20 | 18 | 12 | 19 | 13 | 59 | 17.3 |
| Lawrence | 67 | 67 | 48 | 46 | 41 | 31 | 34 | 24 | 26 | 33.4 |
| Lee | 6 | 8 | 5 | 5 | 9 | 7 | 9 | 8 | 46 | 24.9 |
| Limestone | 6 | 67 | 31 | 56 | 27 | 25 | 27 | 33 | 60 | 17.2 |
| Lowndes | 20 | 14 | 51 | 52 | 27 | 26 | 51 | 31 | 1 | 92.5 |
| Macon | 20 | 10 | 35 | 30 | 26 | 20 | 40 | 27 | 3 | 72.0 |
| Madison | 3 | 4 | 3 | 2 | 4 | 2 | 2 | 2 | 41 | 28.4 |
| Marengo | 67 | 13 | 38 | 37 | 36 | 24 | 45 | 32 | 19 | 37.1 |
| Marion | 67 | 15 | 45 | 45 | 31 | 34 | 31 | 26 | 65 | 13.5 |
| Marshall | 26 | 15 | 18 | 19 | 20 | 27 | 20 | 17 | 61 | 15.5 |
| Mobile | 2 | 2 | 2 | 3 | 2 | 4 | 3 | 3 | 33 | 31.0 |
| Monroe | 20 | 15 | 53 | 56 | 63 | 33 | 67 | 33 | 57 | 19.3 |
| Montgomery | 4 | 3 | 4 | 4 | 3 | 3 | 10 | 14 | 30 | 32.2 |
| Morgan | 26 | 11 | 19 | 16 | 11 | 10 | 16 | 16 | 23 | 35.1 |
| Perry | 35 | 15 | 62 | 54 | 48 | 32 | 67 | 32 | 9 | 44.8 |
| Pickens | 67 | 67 | 59 | 55 | 48 | 67 | 54 | 30 | 62 | 15.1 |
| Pike | 13 | 15 | 16 | 17 | 17 | 25 | 40 | 24 | 15 | 39.3 |
| Randolph | 67 | 67 | 51 | 47 | 52 | 33 | 54 | 33 | 34 | 30.8 |
| Russell | 6 | 5 | 27 | 23 | 8 | 9 | 7 | 6 | 10 | 43.1 |
| Saint Clair | 26 | 13 | 14 | 11 | 33 | 27 | 23 | 19 | 22 | 35.7 |
| Shelby | 17 | 12 | 9 | 8 | 16 | 16 | 12 | 9 | 66 | 10.6 |
| Sumter | 35 | 14 | 48 | 45 | 41 | 30 | 62 | 32 | 13 | 40.2 |
| Talladega | 9 | 10 | 13 | 12 | 15 | 11 | 18 | 12 | 24 | 35.0 |
| Tallapoosa | 26 | 67 | 15 | 13 | 24 | 19 | 34 | 19 | 63 | 14.9 |
| Tuscaloosa | 9 | 6 | 8 | 7 | 5 | 5 | 4 | 4 | 50 | 22.9 |
| Walker | 35 | 14 | 20 | 21 | 23 | 15 | 14 | 14 | 27 | 33.1 |
| Washington | 35 | 67 | 56 | 53 | 58 | 34 | 62 | 31 | 35 | 30.6 |
| Wilcox | 17 | 67 | 41 | 52 | 41 | 29 | 47 | 32 | 2 | 77.1 |
| Winston | 26 | 13 | 54 | 43 | 52 | 34 | 31 | 27 | 17 | 38.1 |

*Data sourced from the AL Law Enforcement Agency UCR and the Center for Health Statistics.*

# Health Indicator 11 - Violence by County

| County | Ranking of Number of Violent Crimes by County, 2018-2019 | | | | | | | | Violence Mortality Rate Per 100,000 Persons, 2019 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Homicides | | Assaults | | Robbery | | Rape | | Rank | Rate |
| | 2018 | 2019 | 2018 | 2019 | 2018 | 2019 | 2018 | 2019 | | |
| Autauga | 35 | 12 | 37 | 36 | 14 | 19 | 31 | 22 | 48 | 23.3 |
| Baldwin | 20 | 9 | 10 | 9 | 10 | 8 | 5 | 5 | 51 | 22.0 |
| Barbour | 35 | 11 | 36 | 34 | 27 | 28 | 34 | 25 | 7 | 48.6 |
| Bibb | 67 | 15 | 59 | 50 | 41 | 29 | 47 | 26 | 32 | 31.3 |
| Blount | 35 | 14 | 12 | 15 | 38 | 22 | 25 | 18 | 21 | 36.3 |
| Bullock | 67 | 67 | 50 | 48 | 34 | 28 | 54 | 33 | 14 | 39.6 |
| Butler | 67 | 67 | 29 | 40 | 48 | 22 | 51 | 32 | 54 | 20.6 |
| Calhoun | 11 | 11 | 6 | 10 | 6 | 10 | 8 | 11 | 45 | 27.3 |
| Chambers | 26 | 15 | 34 | 35 | 20 | 18 | 21 | 21 | 16 | 39.1 |
| Cherokee | 26 | 15 | 39 | 39 | 41 | 31 | 28 | 24 | 25 | 34.4 |
| Chilton | 67 | 14 | 24 | 27 | 41 | 34 | 43 | 20 | 58 | 18.0 |
| Choctaw | 67 | 67 | 64 | 60 | 58 | 34 | 54 | 33 | 67 | 7.9 |
| Clarke | 35 | 15 | 42 | 41 | 48 | 30 | 29 | 29 | 7 | 46.6 |
| Clay | 67 | 67 | 42 | 42 | 58 | 34 | 67 | 33 | 38 | 30.2 |
| Cleburne | 67 | 67 | 66 | 57 | 58 | 67 | 54 | 29 | 5 | 67.1 |
| Coffee | 20 | 14 | 26 | 22 | 22 | 17 | 29 | 11 | 53 | 21.0 |
| Colbert | 16 | 14 | 25 | 32 | 25 | 23 | 24 | 23 | 29 | 32.6 |
| Conecuh | 35 | 15 | 55 | 48 | 38 | 34 | 45 | 29 | 27 | 33.1 |
| Coosa | 67 | 15 | 47 | 45 | 63 | 33 | 54 | 33 | 43 | 28.1 |
| Covington | 20 | 14 | 33 | 33 | 36 | 30 | 40 | 21 | 47 | 24.3 |
| Crenshaw | 67 | 15 | 61 | 51 | 52 | 29 | 54 | 28 | 64 | 14.5 |
| Cullman | 26 | 14 | 46 | 44 | 30 | 25 | 17 | 22 | 30 | 32.2 |
| Dale | 35 | 67 | 21 | 24 | 31 | 27 | 26 | 24 | 36 | 30.5 |
| Dallas | 17 | 11 | 17 | 29 | 13 | 21 | 21 | 26 | 18 | 37.6 |
| DeKalb | 26 | 14 | 32 | 26 | 52 | 30 | 13 | 15 | 6 | 48.9 |
| Elmore | 12 | 13 | 30 | 25 | 19 | 14 | 11 | 7 | 42 | 28.3 |
| Escambia | 67 | 13 | 28 | 31 | 34 | 20 | 38 | 23 | 4 | 71.0 |
| Etowah | 13 | 12 | 11 | 14 | 12 | 13 | 6 | 10 | 44 | 27.4 |
| Fayette | 67 | 15 | 65 | 57 | 63 | 33 | 47 | 30 | 11 | 42.9 |
| Franklin | 35 | 14 | 58 | 28 | 52 | 33 | 34 | 25 | 40 | 28.7 |
| Geneva | 35 | 15 | 40 | 38 | 52 | 31 | 38 | 32 | 36 | 30.5 |
| Greene | 35 | 67 | 42 | 49 | 38 | 32 | 54 | 30 | 20 | 37.0 |
| Hale | 67 | 67 | 67 | 59 | 67 | 34 | 67 | 67 | 55 | 20.5 |
| Henry | 67 | 15 | 56 | 50 | 58 | 67 | 47 | 29 | 49 | 23.2 |

*Data sourced from the AL Law Enforcement Agency UCR and the Center for Health Statistics.*

# Health Indicator 12 - Cancer by County

| County | Overall Cancer Mortality Rate Per 100,000 Persons, 2016-2019 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 2016 Count | 2016 Rate | 2017 Count | 2017 Rate | 2018 Count | 2018 Rate | 2019 Count | 2019 Rate |
| Autauga | 106 | 191.3 | 95 | 171.2 | 89 | 160.1 | 108 | 193.3 |
| Baldwin | 461 | 221.0 | 489 | 230.0 | 546 | 250.4 | 480 | 215.0 |
| Barbour | 59 | 227.2 | 74 | 292.8 | 67 | 269.3 | 60 | 243.1 |
| Bibb | 55 | 242.9 | 48 | 211.8 | 58 | 258.9 | 50 | 223.3 |
| Blount | 155 | 268.6 | 140 | 241.3 | 137 | 236.9 | 153 | 264.6 |
| Bullock | 37 | 357.1 | 26 | 252.2 | 19 | 187.4 | 23 | 227.7 |
| Butler | 48 | 240.0 | 44 | 221.9 | 53 | 269.3 | 43 | 221.1 |
| Calhoun | 271 | 236.5 | 263 | 229.2 | 302 | 264.3 | 253 | 222.7 |
| Chambers | 94 | 277.8 | 91 | 269.9 | 90 | 267.7 | 75 | 225.5 |
| Cherokee | 79 | 307.1 | 70 | 270.7 | 67 | 257.4 | 67 | 255.8 |
| Chilton | 87 | 198.0 | 97 | 220.1 | 79 | 178.9 | 99 | 222.8 |
| Choctaw | 24 | 184.7 | 31 | 239.5 | 27 | 210.3 | 38 | 301.9 |
| Clarke | 54 | 221.4 | 49 | 203.5 | 73 | 305.2 | 80 | 338.7 |
| Clay | 36 | 266.8 | 31 | 231.9 | 40 | 301.3 | 37 | 279.6 |
| Cleburne | 36 | 241.2 | 28 | 187.9 | 29 | 193.5 | 35 | 234.7 |
| Coffee | 94 | 183.5 | 109 | 210.1 | 120 | 231.2 | 98 | 187.2 |
| Colbert | 140 | 258.2 | 132 | 242.2 | 154 | 281.2 | 151 | 273.3 |
| Conecuh | 33 | 266.2 | 39 | 312.8 | 38 | 309.5 | 32 | 265.2 |
| Coosa | 32 | 302.4 | 24 | 223.2 | 25 | 233.3 | 28 | 262.6 |
| Covington | 88 | 234.9 | 130 | 350.5 | 107 | 289.3 | 104 | 280.7 |
| Crenshaw | 44 | 316.3 | 40 | 288.4 | 29 | 209.8 | 51 | 370.3 |
| Cullman | 172 | 208.6 | 180 | 217.5 | 185 | 221.7 | 188 | 224.4 |
| Dale | 107 | 217.4 | 108 | 219.4 | 110 | 224.7 | 108 | 219.6 |
| Dallas | 116 | 289.9 | 86 | 219.3 | 104 | 271.5 | 92 | 247.3 |
| DeKalb | 132 | 186.2 | 148 | 206.7 | 160 | 224.1 | 152 | 212.5 |
| Elmore | 168 | 205.4 | 144 | 176.3 | 166 | 202.7 | 178 | 219.2 |
| Escambia | 95 | 251.8 | 100 | 267.0 | 93 | 253.1 | 96 | 262.1 |
| Etowah | 238 | 232.1 | 261 | 254.0 | 265 | 258.5 | 256 | 250.3 |
| Fayette | 61 | 368.7 | 44 | 267.2 | 52 | 316.4 | 33 | 202.4 |
| Franklin | 68 | 215.0 | 62 | 196.9 | 72 | 229.6 | 71 | 226.4 |
| Geneva | 76 | 285.6 | 80 | 302.8 | 84 | 319.2 | 60 | 228.4 |
| Greene | 18 | 213.7 | 23 | 276.1 | 24 | 291.5 | 16 | 197.3 |
| Hale | 40 | 267.5 | 31 | 209.3 | 32 | 217.3 | 26 | 177.5 |
| Henry | 40 | 233.0 | 51 | 297.4 | 50 | 290.5 | 50 | 290.6 |

*Data sourced from the ADPH Cancer Epidemiology Division and the ADPH Center for Health Statistics.*

| Health Indicator 12 - Cancer by County | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| County | Overall Cancer Mortality Rate Per 100,000 Persons, 2016-2019 | | | | | | | |
| | 2016 Count | 2016 Rate | 2017 Count | 2017 Rate | 2018 Count | 2018 Rate | 2019 Count | 2019 Rate |
| Houston | 220 | 211.4 | 243 | 232.9 | 207 | 197.7 | 195 | 184.2 |
| Jackson | 151 | 289.6 | 141 | 271.6 | 143 | 276.4 | 144 | 278.9 |
| Jefferson | 1,409 | 213.6 | 1,347 | 204.3 | 1,353 | 205.2 | 1,334 | 202.6 |
| Lamar | 42 | 301.8 | 39 | 279.7 | 37 | 267.3 | 42 | 304.2 |
| Lauderdale | 218 | 236.1 | 215 | 232.3 | 221 | 239.2 | 195 | 210.3 |
| Lawrence | 74 | 222.6 | 85 | 257.2 | 90 | 273.1 | 75 | 227.8 |
| Lee | 216 | 135.9 | 266 | 164.6 | 259 | 158.0 | 257 | 156.2 |
| Limestone | 182 | 196.2 | 163 | 172.7 | 162 | 168.4 | 166 | 167.8 |
| Lowndes | 37 | 357.2 | 26 | 258.0 | 30 | 300.8 | 26 | 267.3 |
| Macon | 58 | 305.9 | 46 | 245.3 | 58 | 314.6 | 56 | 309.9 |
| Madison | 673 | 188.5 | 634 | 175.6 | 667 | 182.0 | 646 | 173.2 |
| Marengo | 53 | 269.4 | 48 | 247.7 | 60 | 314.7 | 52 | 275.7 |
| Marion | 69 | 230.0 | 92 | 308.4 | 85 | 285.6 | 84 | 282.7 |
| Marshall | 227 | 238.6 | 216 | 226.1 | 207 | 215.4 | 177 | 182.9 |
| Mobile | 867 | 209.0 | 894 | 216.0 | 925 | 223.6 | 881 | 213.2 |
| Monroe | 42 | 195.1 | 56 | 262.6 | 59 | 280.1 | 37 | 178.5 |
| Montgomery | 405 | 178.9 | 446 | 196.8 | 452 | 200.2 | 416 | 183.7 |
| Morgan | 260 | 218.5 | 283 | 238.2 | 258 | 216.6 | 262 | 218.9 |
| Perry | 21 | 219.3 | 27 | 289.1 | 24 | 262.6 | 20 | 224.1 |
| Pickens | 46 | 226.3 | 34 | 168.5 | 32 | 160.5 | 57 | 286.0 |
| Pike | 77 | 231.3 | 70 | 210.4 | 64 | 192.0 | 66 | 199.3 |
| Randolph | 55 | 242.8 | 71 | 313.2 | 44 | 193.6 | 56 | 246.5 |
| Russell | 126 | 216.6 | 139 | 243.7 | 112 | 193.8 | 135 | 232.9 |
| Shelby | 323 | 367.0 | 291 | 329.9 | 336 | 378.8 | 336 | 375.4 |
| St. Clair | 195 | 92.6 | 193 | 90.4 | 182 | 84.4 | 203 | 93.2 |
| Sumter | 35 | 268.4 | 36 | 283.8 | 31 | 244.3 | 31 | 249.5 |
| Talladega | 207 | 258.4 | 207 | 258.5 | 197 | 246.8 | 192 | 240.1 |
| Tallapoosa | 132 | 324.1 | 116 | 285.1 | 103 | 254.3 | 123 | 304.7 |
| Tuscaloosa | 323 | 156.7 | 301 | 144.8 | 354 | 169.5 | 316 | 150.9 |
| Walker | 189 | 290.9 | 195 | 304.4 | 187 | 293.5 | 169 | 266.1 |
| Washington | 38 | 226.8 | 40 | 242.0 | 40 | 244.2 | 35 | 214.4 |
| Wilcox | 25 | 227.6 | 35 | 326.5 | 42 | 395.2 | 27 | 260.3 |
| Winston | 60 | 252.0 | 52 | 219.2 | 63 | 266.3 | 61 | 258.2 |

*Data sourced from the ADPH Cancer Epidemiology Division and the ADPH Center for Health Statistics.*

| Health Indicator 13 – Diabetes by County | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| County | Diabetes Mortality Rate Per 100,000 Persons, 2016 - 2019 | | | | | | | |
| | 2016 Rank | 2016 Rate | 2017 Rank | 2017 Rate | 2018 Rank | 2018 Rate | 2019 Rank | 2019 Rate |
| Autauga | 22 | 34.3 | 38 | 23.4 | 11 | 52.2 | 18 | 46.5 |
| Baldwin | 62 | 9.1 | 51 | 16.0 | 54 | 11.9 | 49 | 19.3 |
| Barbour | 27 | 30.8 | 59 | 11.9 | 61 | 8.0 | 32 | 28.4 |
| Bibb | 63 | 8.8 | 15 | 44.1 | 33 | 26.8 | 35 | 26.8 |
| Blount | 66 | 6.9 | 58 | 12.1 | 49 | 15.6 | 52 | 17.3 |
| Bullock | 12 | 48.3 | 12 | 48.5 | 45 | 19.7 | 7 | 59.4 |
| Butler | 2 | 70.0 | 5 | 70.6 | 7 | 61.0 | 2 | 77.1 |
| Calhoun | 57 | 13.1 | 57 | 13.1 | 53 | 12.3 | 61 | 11.4 |
| Chambers | 4 | 62.1 | 13 | 47.5 | 6 | 62.5 | 3 | 75.2 |
| Cherokee | 21 | 35.0 | 40 | 23.2 | 13 | 49.9 | 9 | 57.3 |
| Chilton | 61 | 11.4 | 52 | 15.9 | 43 | 20.4 | 66 | 6.8 |
| Choctaw | 51 | 15.4 | 27 | 30.9 | 63 | 7.8 | 30 | 31.8 |
| Clarke | 11 | 49.2 | 42 | 20.8 | 9 | 58.5 | 15 | 50.8 |
| Clay | 53 | 14.8 | 67 | 0.0 | 64 | 7.5 | 65 | 7.6 |
| Cleburne | 56 | 13.4 | 56 | 13.4 | 44 | 20.0 | 59 | 13.4 |
| Coffee | 45 | 17.6 | 48 | 17.3 | 32 | 27.0 | 46 | 21.0 |
| Colbert | 48 | 16.6 | 66 | 7.3 | 58 | 9.1 | 43 | 21.7 |
| Conecuh | 25 | 32.3 | 6 | 64.2 | 21 | 40.7 | 8 | 58.0 |
| Coosa | 44 | 18.9 | 63 | 9.3 | 16 | 46.7 | 63 | 9.4 |
| Covington | 28 | 29.4 | 29 | 27.0 | 23 | 37.9 | 19 | 45.9 |
| Crenshaw | 37 | 21.6 | 23 | 36.0 | 24 | 36.2 | 21 | 43.6 |
| Cullman | 15 | 40.0 | 46 | 18.1 | 34 | 26.4 | 28 | 33.4 |
| Dale | 24 | 32.5 | 20 | 38.6 | 25 | 34.7 | 23 | 38.6 |
| Dallas | 39 | 20.0 | 43 | 20.4 | 47 | 18.3 | 50 | 18.8 |
| DeKalb | 13 | 42.3 | 35 | 23.7 | 12 | 50.4 | 51 | 18.2 |
| Elmore | 38 | 20.8 | 28 | 28.2 | 28 | 29.3 | 40 | 22.2 |
| Escambia | 1 | 74.2 | 11 | 50.7 | 5 | 65.3 | 12 | 54.6 |
| Etowah | 26 | 31.2 | 21 | 37.0 | 15 | 46.8 | 31 | 30.3 |
| Fayette | 33 | 24.2 | 8 | 54.7 | 18 | 42.6 | 25 | 36.8 |
| Franklin | 43 | 19.0 | 45 | 19.1 | 35 | 25.5 | 29 | 31.9 |
| Geneva | 6 | 56.4 | 31 | 26.5 | 8 | 60.8 | 5 | 68.5 |
| Greene | 19 | 35.6 | 1 | 96.0 | 2 | 85.0 | 17 | 49.3 |
| Hale | 30 | 26.8 | 14 | 47.3 | 26 | 34.0 | 47 | 20.5 |
| Henry | 34 | 23.3 | 25 | 35.0 | 10 | 52.3 | 27 | 34.9 |

*Data sourced from the AL Medicaid Agency and the ADPH Center for Health Statistics.*

| Health Indicator 13 – Diabetes by County | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| County | Diabetes Mortality Rate Per 100,000 Persons, 2016-2019 | | | | | | | |
| | 2016 Rank | 2016 Rate | 2017 Rank | 2017 Rate | 2018 Rank | 2018 Rate | 2019 Rank | 2019 Rate |
| Houston | 55 | 14.4 | 41 | 21.1 | 51 | 14.3 | 56 | 15.1 |
| Jackson | 32 | 24.9 | 34 | 25.0 | 31 | 27.1 | 25 | 36.8 |
| Jefferson | 36 | 22.9 | 33 | 25.2 | 40 | 21.4 | 44 | 21.3 |
| Lamar | 10 | 50.3 | 4 | 78.9 | 17 | 43.3 | 16 | 50.7 |
| Lauderdale | 58 | 13.0 | 62 | 9.7 | 52 | 14.1 | 52 | 17.3 |
| Lawrence | 52 | 15.0 | 64 | 9.1 | 58 | 9.1 | 11 | 54.7 |
| Lee | 23 | 32.7 | 32 | 25.4 | 29 | 29.3 | 33 | 28.0 |
| Limestone | 65 | 7.5 | 55 | 13.8 | 57 | 9.4 | 60 | 13.1 |
| Lowndes | 3 | 67.6 | 3 | 79.4 | 3 | 70.2 | 14 | 51.4 |
| Macon | 50 | 15.8 | 30 | 26.7 | 39 | 21.7 | 41 | 22.1 |
| Madison | 42 | 19.3 | 47 | 17.7 | 49 | 15.6 | 57 | 14.5 |
| Marengo | 19 | 35.6 | 18 | 41.3 | 67 | 0.0 | 45 | 21.2 |
| Marion | 67 | 6.7 | 44 | 20.1 | 48 | 16.8 | 24 | 37.0 |
| Marshall | 54 | 14.7 | 53 | 15.7 | 36 | 23.9 | 55 | 15.5 |
| Mobile | 31 | 25.6 | 38 | 23.4 | 42 | 21.0 | 39 | 22.7 |
| Monroe | 29 | 27.9 | 9 | 51.6 | 14 | 47.5 | 36 | 24.1 |
| Montgomery | 14 | 40.6 | 16 | 43.2 | 19 | 42.5 | 13 | 51.7 |
| Morgan | 47 | 16.8 | 50 | 16.8 | 55 | 10.9 | 58 | 14.2 |
| Perry | 8 | 52.2 | 17 | 42.8 | 38 | 21.9 | 20 | 44.8 |
| Pickens | 41 | 19.7 | 61 | 9.9 | 65 | 5.0 | 48 | 20.1 |
| Pike | 18 | 39.1 | 10 | 51.1 | 22 | 39.0 | 34 | 27.2 |
| Randolph | 63 | 8.8 | 24 | 35.3 | 67 | 0.0 | 67 | 4.4 |
| Russell | 5 | 58.4 | 2 | 80.6 | 4 | 65.8 | 4 | 70.7 |
| Shelby | 59 | 11.9 | 65 | 8.9 | 60 | 8.8 | 54 | 16.8 |
| St. Clair | 49 | 15.9 | 54 | 14.7 | 40 | 21.4 | 64 | 8.3 |
| Sumter | 35 | 23.0 | 37 | 23.6 | 62 | 7.9 | 36 | 24.1 |
| Talladega | 16 | 39.9 | 35 | 23.7 | 46 | 18.8 | 38 | 23.8 |
| Tallapoosa | 17 | 39.3 | 19 | 39.3 | 20 | 42.0 | 22 | 42.1 |
| Tuscaloosa | 46 | 17.0 | 60 | 11.5 | 56 | 9.6 | 62 | 9.6 |
| Walker | 39 | 20.0 | 49 | 17.2 | 37 | 23.5 | 42 | 22.0 |
| Washington | 59 | 11.9 | 22 | 36.3 | 1 | 85.5 | 6 | 61.3 |
| Wilcox | 7 | 54.6 | 7 | 56.0 | 30 | 28.2 | 1 | 86.8 |
| Winston | 9 | 50.4 | 26 | 33.7 | 27 | 33.8 | 10 | 55.0 |

*Data sourced from the AL Medicaid Agency and the ADPH Center for Health Statistics.*

| Health Indicator 14 – Tobacco Usage and Vaping by County | | | | | |
|---|---|---|---|---|---|
| County | Adults Currently Smoking by County, 2018 | | County | Adults Currently Smoking by County, 2018 | |
| | Rank | % | | Rank | % |
| Autauga | 57 | 19.4 | Houston | 42 | 21.6 |
| Baldwin | 65 | 17.5 | Jackson | 25 | 22.6 |
| Barbour | 5 | 24.5 | Jefferson | 64 | 18.0 |
| Bibb | 23 | 22.7 | Lamar | 25 | 22.6 |
| Blount | 33 | 22.1 | Lauderdale | 63 | 18.4 |
| Bullock | 6 | 24.4 | Lawrence | 16 | 23.2 |
| Butler | 45 | 21.4 | Lee | 62 | 18.5 |
| Calhoun | 52 | 20.4 | Limestone | 53 | 20.2 |
| Chambers | 35 | 22.0 | Lowndes | 1 | 25.0 |
| Cherokee | 39 | 21.8 | Macon | 55 | 20.1 |
| Chilton | 21 | 22.8 | Madison | 66 | 16.7 |
| Choctaw | 45 | 21.4 | Marengo | 40 | 21.7 |
| Clarke | 21 | 22.8 | Marion | 25 | 22.6 |
| Clay | 13 | 23.6 | Marshall | 31 | 22.2 |
| Cleburne | 18 | 22.9 | Mobile | 53 | 20.2 |
| Coffee | 50 | 20.7 | Monroe | 9 | 23.8 |
| Colbert | 48 | 20.8 | Montgomery | 57 | 19.4 |
| Conecuh | 9 | 23.8 | Morgan | 55 | 20.1 |
| Coosa | 18 | 22.9 | Perry | 3 | 24.6 |
| Covington | 38 | 21.9 | Pickens | 25 | 22.6 |
| Crenshaw | 35 | 22.0 | Pike | 57 | 19.4 |
| Cullman | 40 | 21.7 | Randolph | 42 | 21.6 |
| Dale | 48 | 20.8 | Russell | 31 | 22.2 |
| Dallas | 12 | 23.7 | Shelby | 67 | 14.7 |
| DeKalb | 7 | 24.3 | St. Clair | 47 | 21.1 |
| Elmore | 60 | 19.1 | Sumter | 51 | 20.5 |
| Escambia | 3 | 24.6 | Talladega | 17 | 23.1 |
| Etowah | 33 | 22.1 | Tallapoosa | 30 | 22.3 |
| Fayette | 23 | 22.7 | Tuscaloosa | 60 | 19.1 |
| Franklin | 35 | 22.0 | Walker | 14 | 23.5 |
| Geneva | 9 | 23.8 | Washington | 18 | 22.9 |
| Greene | 2 | 24.7 | Wilcox | 8 | 24.1 |
| Hale | 25 | 22.6 | Winston | 15 | 23.3 |
| Henry | 44 | 21.5 | | | |

*Data sourced from the CDC BFRSS online dashboard.*

## ADPH Public Health Districts

# AL Community Health Issues Survey (1 of 2)

## ALABAMA COMMUNITY HEALTH ISSUES SURVEY

The Alabama Department of Public Health has a goal of serving the people of Alabama with the best and highest quality service possible. As part of this goal, we need your assistance in identifying the health care issues and challenges in your community. Knowing what you consider to be the most important issues will help us to serve you better in the future. In order for your comments to be considered, please respond by **August 15, 2019.**

**This survey should take less than 10 minutes to complete. Your participation is voluntary and all responses to this survey are confidential.**

There are no expected risks associated with completion of the survey. Once you start the survey, you may skip questions or discontinue your participation at any time. If you have questions about this study, please contact Sarah Dunlap at sarahd@bama.ua.edu or at 205-348-3810. If you have questions, concerns, or complaints about your rights as a research participant, contact Ms. Tanta Myles, the University of Alabama (UA) Research Compliance Officer, at (205) 348-8461 or toll-free at 1-877-820-3066. If you have complaints or concerns about this study, file them through the UA IRB outreach website at http://osp.ua.edu/site/PRCO_Welcome.html. You are encouraged to complete the short Survey for Research Participants online at this website. This helps UA improve its protection of human research participants.

**This survey is also available electronically at:**

https://universityofalabama.az1.qualtrics.com/jfe/form/SV_e5NFihvZeb8ZmKh

**Or, if you have a QR code reader on your phone, scan here to be taken to the survey:**

---

**If you would like to provide comments on your choices regarding important health issues and concerns, please do so below:**

**What other services would you like to see provided by the Public Health Department in the future?**

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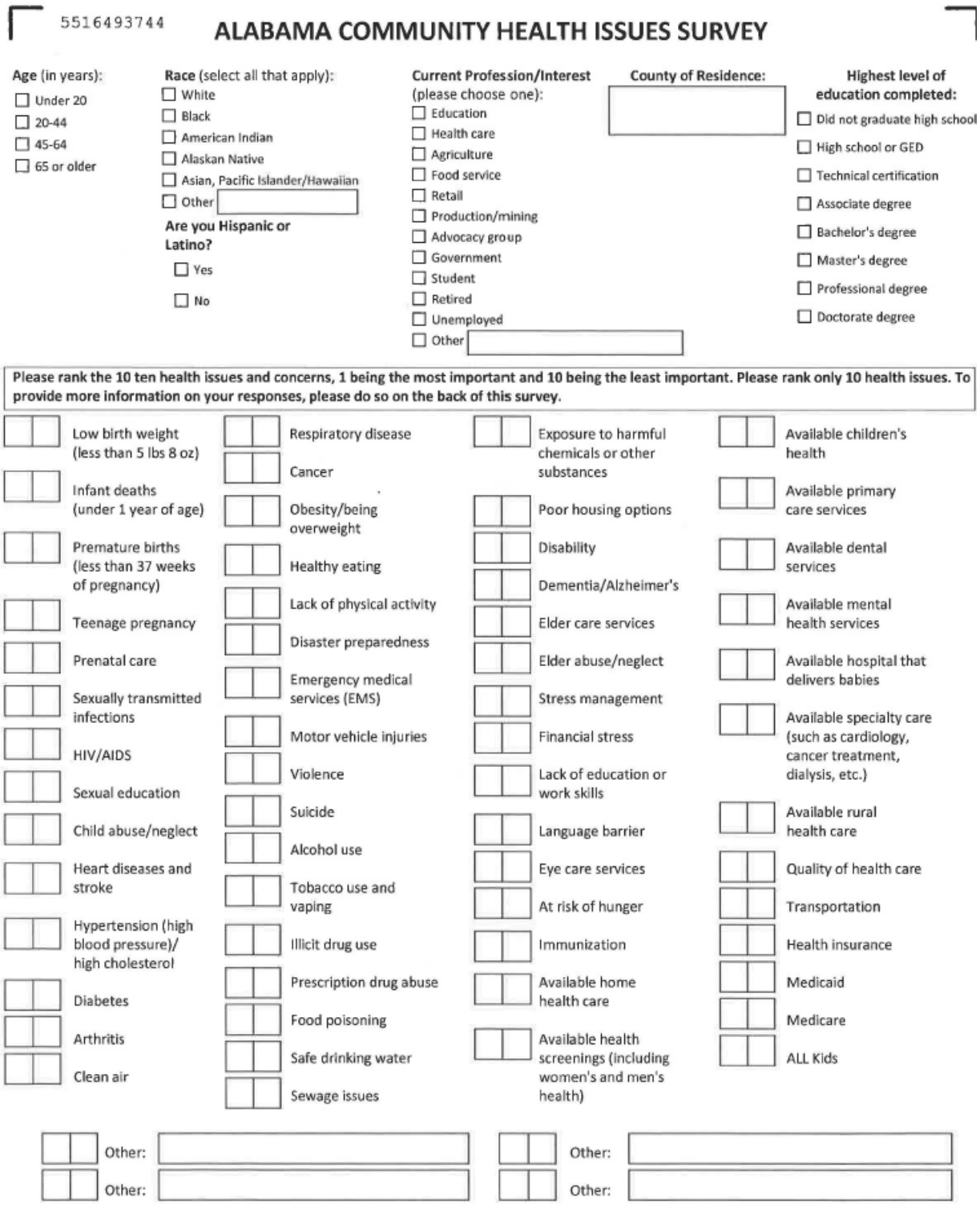
Please return the completed survey to your local public health department or mail to:

Alabama Department of Public Health
Attn: Sondra Reese
Bureau of Prevention, Promotion, and Support
201 Monroe Street
Suite 991
Montgomery, AL 36104

# AL Community Health Issues Survey (2 of 2)



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## ALABAMA COMMUNITY HEALTH ISSUES SURVEY

**Age** (in years):
- ☐ Under 20
- ☐ 20-44
- ☐ 45-64
- ☐ 65 or older

**Race** (select all that apply):
- ☐ White
- ☐ Black
- ☐ American Indian
- ☐ Alaskan Native
- ☐ Asian, Pacific Islander/Hawaiian
- ☐ Other

**Are you Hispanic or Latino?**
- ☐ Yes
- ☐ No

**Current Profession/Interest** (please choose one):
- ☐ Education
- ☐ Health care
- ☐ Agriculture
- ☐ Food service
- ☐ Retail
- ☐ Production/mining
- ☐ Advocacy group
- ☐ Government
- ☐ Student
- ☐ Retired
- ☐ Unemployed
- ☐ Other

**County of Residence:**

**Highest level of education completed:**
- ☐ Did not graduate high school
- ☐ High school or GED
- ☐ Technical certification
- ☐ Associate degree
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Professional degree
- ☐ Doctorate degree

**Please rank the 10 ten health issues and concerns, 1 being the most important and 10 being the least important. Please rank only 10 health issues. To provide more information on your responses, please do so on the back of this survey.**

- ☐☐ Low birth weight (less than 5 lbs 8 oz)
- ☐☐ Infant deaths (under 1 year of age)
- ☐☐ Premature births (less than 37 weeks of pregnancy)
- ☐☐ Teenage pregnancy
- ☐☐ Prenatal care
- ☐☐ Sexually transmitted infections
- ☐☐ HIV/AIDS
- ☐☐ Sexual education
- ☐☐ Child abuse/neglect
- ☐☐ Heart diseases and stroke
- ☐☐ Hypertension (high blood pressure)/ high cholesterol
- ☐☐ Diabetes
- ☐☐ Arthritis
- ☐☐ Clean air
- ☐☐ Respiratory disease
- ☐☐ Cancer
- ☐☐ Obesity/being overweight
- ☐☐ Healthy eating
- ☐☐ Lack of physical activity
- ☐☐ Disaster preparedness
- ☐☐ Emergency medical services (EMS)
- ☐☐ Motor vehicle injuries
- ☐☐ Violence
- ☐☐ Suicide
- ☐☐ Alcohol use
- ☐☐ Tobacco use and vaping
- ☐☐ Illicit drug use
- ☐☐ Prescription drug abuse
- ☐☐ Food poisoning
- ☐☐ Safe drinking water
- ☐☐ Sewage issues
- ☐☐ Exposure to harmful chemicals or other substances
- ☐☐ Poor housing options
- ☐☐ Disability
- ☐☐ Dementia/Alzheimer's
- ☐☐ Elder care services
- ☐☐ Elder abuse/neglect
- ☐☐ Stress management
- ☐☐ Financial stress
- ☐☐ Lack of education or work skills
- ☐☐ Language barrier
- ☐☐ Eye care services
- ☐☐ At risk of hunger
- ☐☐ Immunization
- ☐☐ Available home health care
- ☐☐ Available health screenings (including women's and men's health)
- ☐☐ Available children's health
- ☐☐ Available primary care services
- ☐☐ Available dental services
- ☐☐ Available mental health services
- ☐☐ Available hospital that delivers babies
- ☐☐ Available specialty care (such as cardiology, cancer treatment, dialysis, etc.)
- ☐☐ Available rural health care
- ☐☐ Quality of health care
- ☐☐ Transportation
- ☐☐ Health insurance
- ☐☐ Medicaid
- ☐☐ Medicare
- ☐☐ ALL Kids

☐☐ Other:
☐☐ Other:
☐☐ Other:
☐☐ Other:

## Acronym List

| Acronym | Words |
|---|---|
| AA | African American |
| ADEM | Alabama Department of Environmental Management |
| ADPH | Alabama Department of Public Health |
| AHA | American Health Association |
| AIDS | Acquired immunodeficiency syndrome |
| AL | Alabama |
| ALDOL | Alabama Department of Labor |
| ALDOT | Alabama Department of Transportation |
| ALSDE | Alabama State Department of Education |
| ASCR | Alabama Statewide Cancer Registry |
| ATSDR | Agency for Toxic Substances and Disease |
| AVDRS | Alabama Violent Death Reporting System |
| BCBS | Blue Cross Blue Shield |
| BMI | Body Mass Index |
| BRFSS | Behavioral Risk Factor Surveillance System |
| CDC | Centers for Disease Control and Prevention |
| CHA | Community Health Assessment |
| CHIS | Community Health Issues Survey |
| CI | Confidence Interval |
| CLRD | Chronic Lower Respiratory Disease |
| CVD | Cardiovascular Disease |
| DHR | Department of Human Resources |
| EHA | End HIV Alabama |
| EMS | Emergency Medical Services |
| EPA | Environmental Protection Agency |
| EVALI | E-cigarette or vaping, use-associated lung injury |
| FBI | Federal Bureau of Investigation |
| FDA | Food and Drug Administration |
| FQHC | Federally Qualified Health Centers |
| FTE | Full-time Employees |
| GBM | Gay and Bisexual Men |
| GED | General Educational Development |
| HIV | Human Immunodeficiency virus |
| HPSA | Health Professional Shortage Areas |
| HPV | Human Papillomavirus |
| HRSA | Health Resources and Services Administration |
| LGBTQ+ | Lesbian, Gay, Bisexual, Transgender, and Queer |
| MCH | Maternal and Child Health |
| N/A | Not Applicable |
| NIH | National Institute of Health |
| NPA | Nutrition and Physical Activity |
| OB-GYN | Obstetrics and Gynecology |
| OCPS | Office of Child Protective Services |
| PRAMS | Pregnancy Risk Assessment Monitoring System |
| PWS | Public Water Systems |
| SAMHSA | Substance Abuse and Mental Health Services Administration |
| SDOH | Social Determinants of Health |
| SDWA | Safe Drinking Water Act |
| SHA | State Health Assessment |
| SIDS | Sudden Infant Death Syndrome |
| SNAP | Supplemental Nutrition Assistance Program |
| STD | Sexually Transmitted Diseases |
| STI | Sexually Transmitted Infections |
| SVI | Social Vulnerability Index |
| U.S. | United States |
| UCR | Uniformed Crime Reporting |
| USDA | U.S. Department of Agriculture |
| USDHHS | U.S. Department of Health and Human Services |
| USHUD | U.S. Department of Housing and Urban Development |
| WHO | World Health Organization |
| WONDER | Wide-ranging Online Data for Epidemiologic Research |
| YMCA | Young Men's Christian Association |
| YRBSS | Youth Risk Behavioral Surveillance System |

## Data Definitions and Technical Notes

**Age–adjusted Rate –** The total number of events, or counts, divided by the population of interest, and statistically adjusted for age difference. Often, rates are influenced by underlying age distribution, so this method permits unbiased comparisons between groups. For example, the cancer incidence data uses age-adjusted rates for new cases.

**Confidence Interval –** A range of values defined so there is a probability that the value falls between the interval and the observed value. In this assessment, we assume a 95 percent confidence interval.

**Crude Rate –** The total number of events, or counts, divided by the total population of interest. The number is typically multiplied by a population rate of 1,000, 10,000, or 100,000 persons. For example, the leading cause of death and mortality data use crude rates with 100,000 persons.

**Incidence** – The number of new cases of a condition, symptom, death, or injury that develop in the population during a specific time period.

**Prevalence** – The total number of individuals in a population who have a disease or health condition at a specific time period and is usually expressed as a percentage.

**Rank** – The appendix includes the ranking of rates by county from most severe (1) to least severe (67). If multiple counties had no data provided or a rate less than 1, a rank of 67 was given to them.

**Rural/Urban Status –** This is defined at the county level since most data are not available at the sub-county levels. The SHA definition considers the following counties to be urban: Calhoun, Etowah, Houston, Jefferson, Lauderdale, Lee, Madison, Mobile, Montgomery, Morgan, Shelby, and Tuscaloosa.

**Uninsured** – People who are not covered by any of the following types of health coverage plans: insurance through a former or current employer, insurance directly purchased from an insurance company, Medicare, Medicaid, TRICARE, Indian Health Services, the Department of Veterans Affairs, and any other government or military healthcare.

## Data Limitations

Sources of the data used in this report were selected based upon accepted reliability, completeness, timeliness, and availability of the source. Data in this publication are generally presented as frequencies, rates, and percentages confined between the years 2016-2019. Rounding errors may exist because of the estimation techniques. Where data are not available, "N/A" or a dash are indicated. All other assumptions and sources are included with the data referenced.

### BRFSS Data

BRFSS data are a cross-sectional telephone survey that state health departments conducted monthly over landline and cellular telephones. Prevalence data among U.S. adults are used regarding their risk behaviors and preventative health practices that can affect their health status. A weighted multiplier is used to get to an estimated average.

### Cancer Data

The AL Statewide Cancer Registry was the primary source for cancer data. The data are sourced from provider confirmed incidence cases throughout the state. The adjusted rates are used over a 5year incidence.

### Census Data

The U.S. Census Bureau American Community Survey 1- and 5-year estimates were the primary source for the state-level population, housing, and economic data. County-level population statistics are based on vintage year 07V2019. Different vintage years of estimates are not comparable.

### Medicaid Data

The Medicaid data were specially requested to include the years 2017 and 2018. The numbers used in this assessment include the total Medicaid population of children and adults.

### Medicare Data

The Centers for Medicare and Medicaid dashboard was the source for Medicare data for county-level population statistics. The prevalence data include all Medicare recipients in the year 2018.

### Mortality Data

The AL Center for Health Statistics was the source for mortality data. The data are provided through death certificates as the underlying cause of death. Only diabetes-related mortality uses the primary cause of death. Deaths are classified according to the International Classification of Diseases, Tenth Revision, and follow the National Center for Health Statistics instructions. The crude rates are given for 2019.

### Natality Data

The AL Center for Health Statistics was the primary source for natality data. The data are provided through birth certificates. The crude rates are given for 2019.

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- Alabama DHR
- Alabama Department of Labor
- Alabama Department of Mental Health
- Alabama Law Enforcement Agency
- Alabama Medicaid Agency
- Alabama Rural Development Office
- Alabama Office of Telehealth
- Jefferson County Health Department
- Mobile County Health Department
- Local County Health Departments



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